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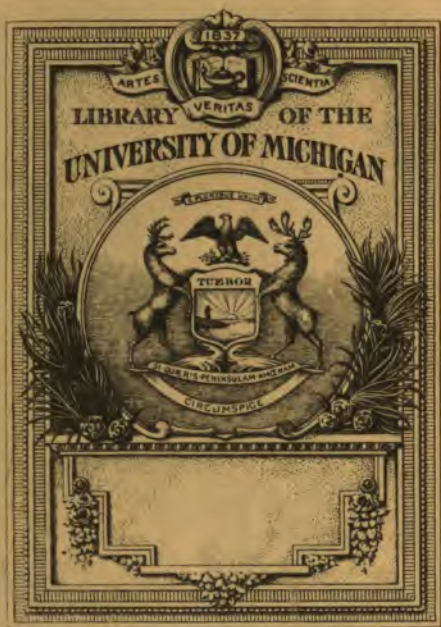
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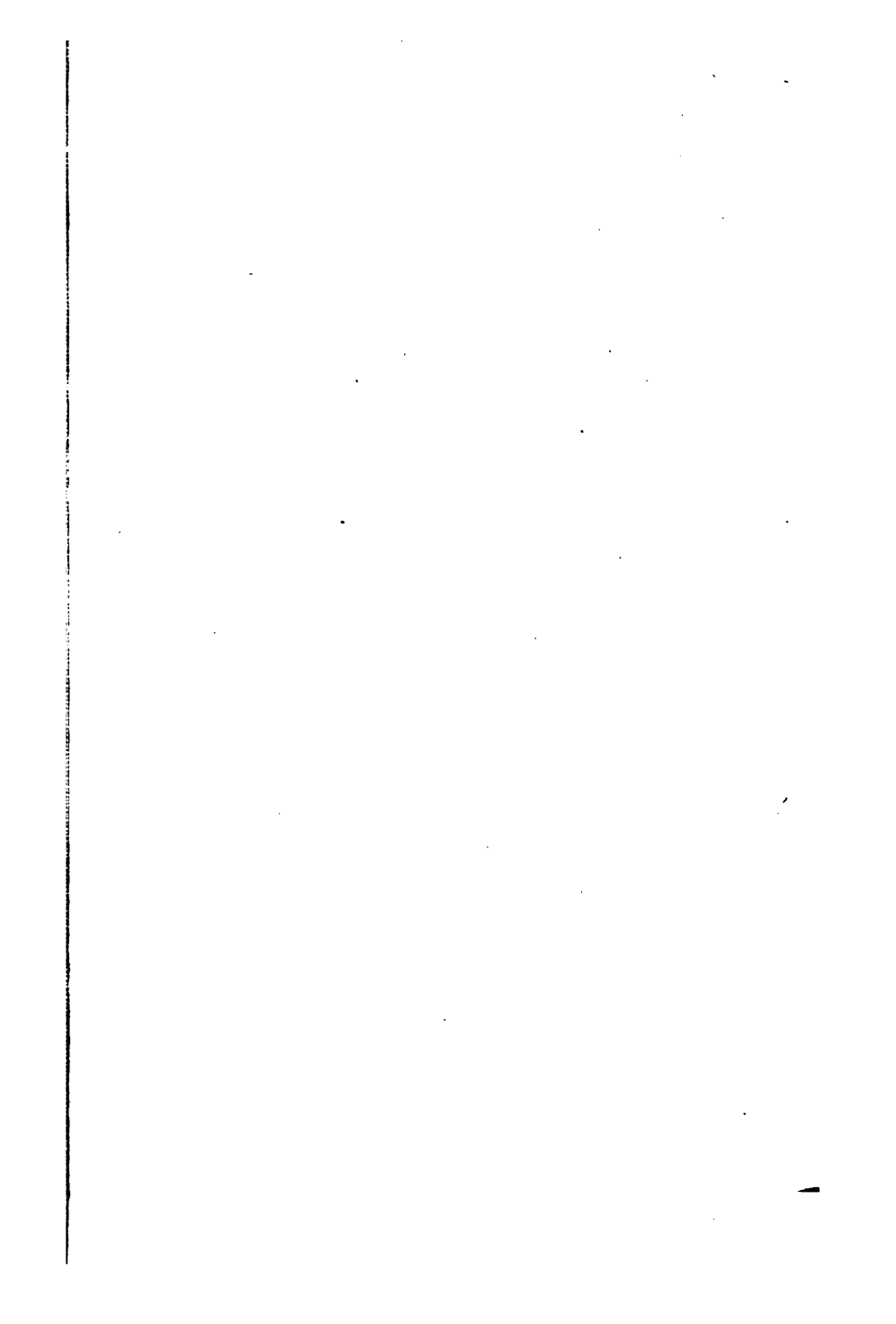
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LIABILITY AND COMPENSATION INSURANCE

INDUSTRIAL ACCIDENTS AND THEIR PREVENTION,
EMPLOYERS' LIABILITY, WORKMEN'S COMPEN-
SATION, INSURANCE OF EMPLOYERS'
LIABILITY AND WORKMEN'S
COMPENSATION

BY
arrub
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PREFACE

The inadequacy of the employers' liability principle gave rise to a demand for more liberal legislation and the period beginning with 1911 has been marked by the enactment of workmen's compensation laws granting benefits to workmen for practically all injuries occurring during working hours. Such laws are now in force in thirty-two states and two territories, and an act was passed in 1916 covering all civil employees in the service of the Federal Government. These developments have broadened and intensified the need for insurance to relieve employers of the uncertain and heavy burden of payments to employees and to secure workmen in their rights to receive compensation. To furnish insurance commensurate with these needs both private and governmental agencies have been created and extended.

Workmen's compensation and its insurance involve numberless intricate problems, legislative, administrative, and technical. The revolutionary nature of the principle and its rapid adoption have made it difficult to arrive at adequate solutions. Much remains to be done, but the accomplishments of legislators, public and private officials, and insurance scientists have been remarkable, and what might have been a growth of many years has been compressed into six. The work of these six years has been fundamental, precedent has not been allowed to rule, and the future will probably see the development of present principles rather than the discovery of new ones.

This volume aims to present the results of the workmen's compensation movement in the United States in terms of legislation and insurance practice, and to ex-

plain the industrial accident problem and the development of liability and compensation principles as a background for the comprehension of present problems. In method of presentation it follows the outline of a course of instruction given by the writer in the Wharton School of the University of Pennsylvania; taking up successively industrial accidents and their prevention, the law of negligence, the development of workmen's compensation, existing compensation statutes, and the principles and practices of insurance as applied to employers' liability and workmen's compensation. Where authorities disagree both sides are presented—the book is intended to be a text rather than a polemic—and final conclusions on controversial subjects have been avoided. Wherever necessary in the interests of accuracy, chapters have been read and criticized by specialists. Suggestive references are added wherever they are available, that the student who desires to do so may be able to go to more exhaustive and particularized sources.

It is hoped that the volume may prove useful as a survey of the general field for professional and lay students as well as for those whose work lies in specialized branches of the insurance business.

Space does not permit detailed acknowledgment of the assistance received from public and private officials, without whose coöperation the preparation of this text would have been impossible. The author is greatly indebted to these, and especially to Dr. S. S. Huebner, at whose suggestion the work was undertaken, and to Dr. Bruce I. Mudgett, both of whom have read the manuscript and aided with constructive suggestions.

RALPH H. BLANCHARD.

University of Pennsylvania.

CONTENTS

PART I

INDUSTRIAL ACCIDENTS AND THEIR PREVENTION

CHAPTER	PAGE
I. INDUSTRIAL ACCIDENTS	3
The extent of industrial accidents, 3. The results of industrial accidents, 5. Responsibility, 9. Accident statistics, 11. The problem of industrial accidents, 12.	
II. THE PREVENTION OF INDUSTRIAL ACCIDENTS	13
Agencies of accident prevention, 14. Methods of accident prevention, 17. Occupational diseases, 26.	
III. THE RESULTS OF ACCIDENT PREVENTION	27
Reduction in accident frequency, 27. Reduction in loss of time and wages, 31. Net saving, 33. Conclusion, 36.	

PART II

EMPLOYERS' LIABILITY AND WORKMEN'S COMPENSATION

IV. THE LAW OF NEGLIGENCE AS APPLIED TO THE RELATION OF MASTER AND SERVANT	41
The law of negligence, 41. Employers' liability, 42. Proof of liability, 45. Assumption of risk, 45. Common employment, 46. Contributory negligence, 48. Burden of proof, 48. Death limitation, 49. Contracting out, 49. Modifications of the common law, 49. Modifications of the fellow-servant rule, 50. Historical development, 52.	

CHAPTER

V. CRITICISM OF THE SYSTEM OF EMPLOYERS' LIABILITY . . . 1

The employee's criticism, 59. The employer's criticism, 63. Society's criticism, 64. Summary, 65. Other attempts to solve the accident problem, 65. Conclusion, 66.

✓ VI. THE THEORY OF WORKMEN'S COMPENSATION

Changes in industrial relations, '69. Change from handicraft to machinery, 72. The growth of cities, 73. New social ideas, 73. Workmen's compensation, 75. Definition of workmen's compensation, 76. Basis of workmen's compensation, 76. Conclusion, 78.

✓ VII. HISTORICAL DEVELOPMENT OF WORKMEN'S COMPENSATION IN FOREIGN COUNTRIES

Germany, 82. Early laws, 82. Liability act of 1871, 83. Workmen's compensation, 84. Provisions of the present law, 87. Great Britain, 88. Employers' liability, 88. Workmen's compensation, the law of 1897, 90. Later acts, 92.

✓ VIII. HISTORICAL DEVELOPMENT OF WORKMEN'S COMPENSATION IN THE UNITED STATES AND TERRITORIES (

Compensation schemes of private corporations, 95. Workmen's collective insurance, 96. The Maryland act of 1902, 96. The Massachusetts act of 1908, 98. The federal act of 1908, 99. Later acts, 99.

IX. WORKMEN'S COMPENSATION LEGISLATION IN THE UNITED STATES AND TERRITORIES 10

Election of compensation, 104. Employments covered, 108. Injuries covered, 110. The beneficiaries of compensation, 112. Waiting period, 114.

X. WORKMEN'S COMPENSATION LEGISLATION IN THE UNITED STATES AND TERRITORIES (*Continued*) . . . 111

The schedule of compensation, 116. Classification of industrial accidents, 116. Total disability benefits, 118.

CONTENTS

ix

CHAPTER

PAGE

Partial disability benefits, 120. Specific permanent injury schedules, 121. Death benefits, 123. Medical and surgical aid, 126. Commutation of payments, 126. Criticism, 127. The computation of compensation, 129.

XI. WORKMEN'S COMPENSATION LEGISLATION IN THE UNITED STATES AND TERRITORIES (*Continued*) . 132

Administration, 132. Administrative commissions, 132. The duties of the commission, 134. Advantages of the commission plan, 136. Disadvantages of the commission plan, 137. Miscellaneous provisions, 137. Burden of cost, 137. Compensation a preferred claim, 138. Assignments and exemptions, 138. Accident prevention, 139. Other provisions, 139.

XII. THE CONSTITUTIONALITY OF WORKMEN'S COMPENSATION LAWS 142

Compulsory laws, 143. The Ives case, 143. The Clausen case, 147. Supreme court decisions, 151. Elective laws, 155.

PART III

EMPLOYERS' LIABILITY AND WORKMEN'S COMPENSATION INSURANCE

XIII. THE THEORY OF INSURANCE AS APPLIED TO EMPLOYERS' LIABILITY AND WORKMEN'S COMPENSATION . 161

The theory of probability, 162. Accuracy of the theory, 163. Application of the theory of probability to the insurance of employers' liability and workmen's compensation, 168. Practical qualifications, 171.

✓ XIV. METHODS OF INSURANCE 173

Self-insurance, 173. Types of insurance organizations, 174. Insurance requirements, 175. Methods of insurance permitted, 177. The stock company, 179. Characteristics, 179. History and present position of stock companies, 180. Arguments for insurance in stock

companies, 181. Arguments against insurance in stock companies, 183. The mutual, 184. Characteristics, 184. History and present position, 185. Arguments for mutual insurance, 186. Arguments against mutual insurance, 187.

XV. METHODS OF INSURANCE (*Continued*) 18

The state funds, 188. Characteristics, 188. History and extent of business, 190. Arguments in favor of state funds, 191. Arguments against state funds, 192. Conclusion, 193. Conclusions from experience, 195. The future, 197.

XVI. THE POLICY CONTRACT 19

General principles, 199. A contract of indemnity, 199. A personal contract, 200. Rules of construction, 201. Employer's liability contract, 201. The obligation assumed, 201. Premium computation, 202. Inspection, 203. Cancellation, 203. Notices, 203. Warranties, 204. Miscellaneous, 204. Workmen's compensation contract, 205. The obligation assumed, 205. Premium adjustment, 206. Notice, 206. Cancellation, 206. Approval of the contract, 206.

XVII. MANUAL PREMIUM RATES 208

Employers' liability rates, 208. Workmen's compensation rates, 209. History, 209. The importance of the rate, 210. The task of rate-making, 210. Kinds of rates, 211. Manual rates, 211. Definition, 211. Use of manual, 211. The component parts of a manual rate, 212. Factors to be considered in computing probable loss cost, 215. Factors causing variation in loss cost between states, 221. The expense and profit factors, 222.

XVIII. MANUAL PREMIUM RATES (*Continued*) 223

Calculation of manual rates, 223. The problem, 223. The machinery of rate-making, 224. Method of cal-

CONTENTS

xi

CHAPTER

PAGE

culating manual rates, 226. Basic pure premiums, 227. Law differential, 227. Accident frequency, 230. Increasing cost of the act, 232. Industrial diseases, 232. Catastrophes, 232. Expense, 232. Typical rate calculation, 235. Criticism of present methods of calculation 236. The future, 237.	
XIX. MERIT RATING	240
Bases for merit rating, 241. Schedule rating, 241. Definition, 241. The schedule, 242. Types of hazard, 243. Machine-employee ratio, 246. Safety organization, inspection service, and education, 248. Use of eye protectors, etc.; maintenance and inspection, 249. Formula rating, 249. Application of the schedule, 249. Conclusion, 252.	
XX. MERIT RATING (<i>Continued</i>)	253
Experience rating, 253. Definition, 253. Purpose, 253. Requirements for a scientific plan of experience rating, 254. The New York plan, 255. Calculation of loss ratio, 255. Neutral zone, 257. Maximum debits and credits, 257. Computation of actual debits and credits, 258. Schedule rated risks, 259. Application of the plan, 259. Other plans, 259. Proposed plans, 260. Summary of arguments <i>pro</i> and <i>con</i> , 261. Conclusion, 262.	
XXI. RESERVES	265
Unearned premium reserve, 265. Method of calculation, 266. Loss reserves, 267. Definition and purpose, 267. Desiderata, 268. Difficulties, 269. Methods of calculation, 270. Present law, 272. Defects of the present law, 275. Proposed law, 275. Other methods used, 278.	
XXII. INSURANCE OF THE CATASTROPHE HAZARD	280
Limits, 282. Accumulation of catastrophe reserves, 282. Reinsurance, 283. Workmen's compensation, 284.	

APPENDICES

A. THE NEW YORK WORKMEN'S COMPENSATION LAW	2
B. FORM OF WORKMEN'S COMPENSATION AND EMPLOYERS' LIABILITY POLICY CONTRACT COVERING A TYPICAL MANUFACTURING RISK	3
INDEX	3

PART I

**INDUSTRIAL ACCIDENTS AND THEIR
PREVENTION**

CHAPTER I

INDUSTRIAL ACCIDENTS

Industrial accidents, those accidents occurring to an employee during his working hours, create the problems of which the systems of Employers' Liability and Workmen's Compensation are attempted solutions.

The Extent of Industrial Accidents.—It has been estimated by Dr. Frederick L. Hoffman that there occurred in the United States, during the year 1913, 700,000 industrial accidents, involving a disability period of over four weeks and 25,000 which terminated fatally.¹ In the metal and miscellaneous mineral mines of the United States the statistics of accidents for the year 1913 are as follows:²

	Number	Per 1000 employed
Fatally injured.....	683	3.54
Seriously injured (loss of 20 days or more)	5,890	30.50
Slightly injured (loss of over one and less than 20 days).....	27,081	140.25

The mining industry is of an extremely hazardous nature and the accident frequency among its employees

¹ *Industrial Accident Statistics*, p. 6.

² U. S. Bureau of Mines, *Technical Paper* 94, p. 27.

COMPENSATION INSURANCE

is higher than in any other. In two other dangerous industries for which we have statistics for the entire country the following tables have been compiled:

ACCIDENTS TO EMPLOYEES OF STEAM RAILWAYS YEAR
ENDING JUNE 30, 1915³

	Number	Per 1000 employed
Killed	2,152	1.49
Injured	138,092	88.64

ACCIDENTS IN 155 IRON AND STEEL PLANTS YEAR END-
ING JUNE 30, 1910⁴

	Number	Per 1000 300- day workers
Fatal	274	1.86
Permanent injury.....	400	2.72
Temporary disability (one day and over).....	35,364	240.6
Total	36,038	245.2

Unfortunately we have no statistics to show the number of industrial accidents throughout the United States in other industries but certain of the individual states have gathered valuable data from which the following table is cited as especially significant:

³ Interstate Commerce Commission, *Accident Bulletin* No. 56, p. 23.

⁴ *Report on Conditions of Employment in the Iron and Steel Industry in the United States*, Vol. IV, p. 43.

INDUSTRIAL ACCIDENTS

5

INDUSTRIAL ACCIDENTS IN MASSACHUSETTS FOR THE YEAR ENDING JUNE 30, 1914⁵

Fatal accidents.....	509
Non-fatal accidents.....	96,382
Total	96,891
Rates per 1000 employees:	
Automobile factories.....	287.
Box makers (wood).....	137.
Car and railroad shops.....	100.
Cotton mills.....	67.
Boots and shoes.....	54.
Clothing makers.....	22.
Average for 25 selected industries.....	102.85

Further citations would only serve to emphasize the fact which the above figures clearly indicate, that industrial accidents play no inconsiderable part in the conduct of modern business, and are sufficiently numerous to warrant careful study with a view to eliminating them or mitigating their consequences. Such a study should proceed first in the direction of a determination of the economic loss occasioned by them. Physical suffering and anxiety must also be considered but these consequences are not capable of measurement and therefore cannot be made the subject of a scientific study. Having determined the economic loss we will be in a position to judge the magnitude of the problem and to adopt measures for its solution which are commensurate with its importance.

The Results of Industrial Accidents.—The occur-

⁵ *Second Annual Report of the Industrial Accident Board of Massachusetts*, Boston, 1915, pp. 29 and 32.

rence of these injuries is directly detrimental to the employee, the employer, and to society.

The most obvious loss is borne by the working class, the employee and his dependents, and consists of several items; loss of time, loss of wages, and medical and surgical expenses. In 130 steel plants during the two years ending June 30, 1910, the average time lost per injury was 12.9 days, and the average time lost per 300 day worker for the same period in plants and departments where data were available was estimated at 3.5 days.⁶ Assuming an average wage of \$2.00 per day the wage loss per injury was \$25.80 and per worker, \$7.00, in addition to medical and surgical expenses. These figures are based on a total of 11,702 accidents and 150,714 days lost; involving, at the \$2.00 wage, a total loss of \$301,428 in wages, to which should be added payments to physicians and hospitals. In Massachusetts the duration of total disability has been analyzed for the 96,382 non-fatal accidents mentioned above with the following results:

Duration of Total Disability	No. of Cases	% of Total
1 week and under.....	24,301	25.21
1 to 2 weeks.....	9,755	10.12
2 to 4 weeks.....	9,221	9.57
4 to 8 weeks.....	7,065	7.33
8 to 13 weeks.....	2,549	2.64
13 weeks to 6 months.....	1,491	1.55
6 months to 51 weeks.....	438	.45
52 weeks and over.....	293	.30
Disability of less than one day....	41,269	42.82

⁶ *Report on Iron and Steel Industry.* Vol. IV. pp. 53-56.

The wages of the workman who suffered the above injuries have been analyzed as follows:

Wage Groups	No. of Cases	% of Total	Wage Groups	No. of Cases	% of Total
\$6 and under....	5,171	5.37	\$16 01—\$17 00...	4,085	4.24
6 01—\$7 00.....	3,268	3.39	17 01— 18 00...	5,029	5.22
7 01— 8 00.....	5,468	5.67	18 01— 19 00...	1,612	1.67
8 01— 9 00.....	7,941	8.24	19 01— 20 00...	3,194	3.31
9 01—10 00.....	7,569	7.85	20 01— 21 00...	1,807	1.87
10 01—11 00.....	8,471	8.79	21 01— 22 00...	1,022	1.06
11 01—12 00.....	12,668	13.14	22 01— 23 00...	496	.51
12 01—13 00.....	4,670	4.85	23 01— 24 00...	842	.87
13 01—14 00.....	8,075	8.38	24 01— 25 00...	1,272	1.32
14 01—15 00.....	7,782	8.07	Over \$25.....	2,148	2.23
15 01—16 00.....	3,792	3.93			
			Total	96,382	

All of the above figures apply only to non-fatal accidents which, while they are much more numerous, cause, in the average case, much less economic loss than do fatal accidents, for the majority of workmen have one or more persons dependent in whole or in part upon their wages for support. Of the 509 fatal accidents in Massachusetts 422 involved dependency, 942 persons were totally dependent in 331 cases, and 144 were partially dependent in 91 cases; in 87 cases there were no dependents.

The relative importance of the losses from various types of disability may be indicated in a very general way by a table drawn up by the actuaries of the Industrial Insurance Department of the state of Washington. Assuming that the average work year consisted of 300 days and that the average life expectancy was twenty-five years, this table was compiled for the year ending June 30, 1913.⁷

⁷Second Annual Report of the Industrial Insurance Department, Olympia, Wash., 1914, p. 102.

	Work years lost
Fatal Accidents.....	8,225.
Temporary Total Disability.....	1,135.8
Permanent Partial Disability.....	4,131.2
Permanent Total Disability.....	325.
	<hr/>
	13,817.

Volumes might be filled with statistics to show the magnitude of the problem from the point of view of the workingman. He is hard-pressed to meet the necessary expenses of existence and is entirely incapable of providing adequately for himself and his dependents in case an accident removes his source of income. Unquestionably, were his the only loss from industrial accidents, there would be an overwhelming need for investigation and the application of remedial measures.

But the employer is also affected. It is to his interest to have his business proceed efficiently and without interruption; if a workman is injured his place must be filled by finding a new man who will often require considerable time to become accustomed to his work. Damage suits are a frequent result of accidents and these cause friction between employer and employed and involve large expense in the defense of claims on the part of the former. If there were no industrial accidents production would proceed on a more efficient basis and the attention given to the consequences could be expended on other problems.

Thus far the effect of industrial accidents on those most vitally and directly interested has been examined, but if social action is to be demanded people in gen-

eral must be informed of their interest in the problem before us. Society loses, first from the direct decrease in productivity, due both to the cessation of productive effort on the part of the injured man and to the lowering of the general efficiency of industry. In addition, the injured man and his dependents must be cared for, with a consequent lowering of standards which reacts further to decrease general productivity. If the workman sues his employer for damages the expensive machinery of the law is set in motion and another heavy item of loss is added, for cases of this sort occupy a large share of the court's time where workmen's compensation laws are not yet in force.

Responsibility.—Having investigated the nature and extent of industrial accidents the next step logically is to determine where the responsibility for their occurrence rests. With a knowledge of this, we can more readily attack the causes, and more justly assess the cost of caring for the injured. Many accidents can be traced to a lack of care or to actual wrongdoing on the part of some person, employer or employee, but by far the greatest share of casualties is due to the hazard of industry. By the hazard of industry (or "trade risk") is meant that hazard which accounts for accidents not due to the personal fault of any individual. They are a necessary result of the existing methods of conducting business, and responsibility for their occurrence should be assigned to the industry. That this factor is of very real importance in determining accident rates is shown by an examination of comparative tables showing the rates for different industries over a series of years. It is found that the

variation as between industries is approximately constant; for example, mining and steel work will show a high accident frequency, while the textile industry and boot and shoe manufacturing will always have a much lower rate.

Various attempts have been made to analyze reports of accidents in order to determine the personal and industrial factors. The results should be accepted as only approximately correct since so many elements enter into each case that it is impossible to make rigid classifications. - A careful statistical investigation in a large iron and steel plant covering a period of six years discloses the following figures: ⁸

Accidents due to	%
Hazard of Industry.....	60
Negligence of worker.....	7
Negligence of fellow worker.....	6
Negligence of employer.....	4
Not disclosed by the record.....	23
	<hr/> 100

In different departments of the plant the percentage of accidents due to the hazard of industry varied from 52 to 69 per cent.

Statistics compiled for three years in the State of Washington are given below: ⁹

⁸ *Report on Iron and Steel Industry*. Vol. IV., pp. 174-5.

⁹ *Second Annual Report of the Industrial Insurance Department*. p. 97.

Fourth Annual Report of the Industrial Insurance Department. p. 94.

Accidents due to	1913	1914	1915
Risk of Trade.....	69.0%	81.7%	89.0%
Workmen's fault.....	7.8	7.2	5.3
Fellow servant's fault...	2.4	3.2	1.5
Employer's fault.....	.7	.2	.1
Foreman's fault.....	.1	.1	.05
Third person's fault.....	.2	.2	.15
Facts not ascertainable..	19.8	7.4	3.9
	<hr/> 100%	<hr/> 100%	<hr/> 100%

Everywhere the testimony is the same; the hazard of industry is responsible for a large percentage of industrial accidents and, with the improvement of safety devices and greater care on the part of both the workmen and his employer, we may expect to see an increase in this percentage.

It is occasionally argued that the extra hazard involved in a given trade is offset by larger wages, but no definite relation between hazard and wages has ever been shown to exist. High wages are usually due to the limited supply of skilled workmen and numerous examples of a low wage scale in extremely dangerous industries are familiar to everyone.

Accident Statistics.—The study of industrial accidents in the United States has been greatly hampered by a lack of reliable and adequate data. Besides, the data of individual states have not been comparable because of variation in thoroughness and methods of classification. The adoption of a uniform and complete accident-reporting schedule is strongly to be advised since it is only by such means that we can se-

cure the facts necessary for a practical consideration of the problem.

The Problem of Industrial Accidents.—With the above facts before us we are in a position to define clearly the problem involved in industrial accidents. We must find methods of eliminating them or of making their consequences less burdensome, always remembering that any social cost is justified which results in a net social saving. A consideration of these methods will occupy the following chapters.

References at end of Chapter III.

CHAPTER II

THE PREVENTION OF INDUSTRIAL ACCIDENTS

The most logical method of eliminating the suffering and economic loss due to industrial accidents is to prevent their occurrence; with the removal of the cause the effect will disappear. But the complete elimination of industrial accidents seems to be impossible if industry is to continue with human beings as a factor in production. Accidents must be divided into two classes, the preventable and the unpreventable, and every reasonable effort should be made to anticipate and eliminate those in the first class. The burden of those which remain should be lightened in so far as possible and should be justly distributed among the responsible parties.

The achievement of industrial safety through prevention of accidents, while not a new idea, has been the subject of active endeavor only during the last decade; in fact, with the greater part of our industrial population, safety work is a development of the last two or three years. In the past, lack of accurate knowledge, currency of individualistic ideals, and generally wasteful methods of production have precluded attention to the problem. Industrial accidents have been regarded as an unfortunate but not particularly important incident of modern production. Now, with

the growth of the conservation idea, the development of a knowledge of consequences through statistic studies, and direct financial pressure on employes through laws compelling the payment of compensation to workmen, we find rapidly increasing and effective interest in the subject.

Agencies of Accident Prevention.—The State should be the primary force in the prevention of accidents since it represents all classes and is in a position to exercise compulsion. That our governments have been far behind Europe in safety activity has been due largely to ignorance of the possibilities of such work and to absence of the demand for it because of our less highly concentrated population. One of the first examples of state interference in the cause of safety is the Safety Appliance Law passed by the Federal Government in 1893, aimed specifically at accidents due to the dangerous methods of coupling cars then in vogue on interstate railroads. This law has since been considerably extended to cover a wider range of railroad work. The individual states have passed, from time to time, laws for the elimination of specific unsafe practices and for the general improvement of conditions in dangerous trades, but their enforcement has usually been lax and productive of little good.

As a result, however, of steadily growing interest during the last six or seven years legislatures, backed by public demand, are enacting more effective statutes, in some cases independent of a Workmen's Compensation Act, but more often supplementary thereto. The most important feature of these later enactments has been the creation of expert commissions for the

collection of information and the enforcement of the law. These commissions are usually empowered to make inspections and require the installation of safety devices, and make annual reports of the progress of their work. More significant still is the educational work which they are carrying on through the publication of pamphlets, the promulgation of safety standards, public exhibitions and lectures, safety museums and libraries, and conferences with individual employers.

The latest development of the governmental program is the adoption of safety as a subject of instruction in the public schools. New Jersey passed a law in 1913 requiring courses to be installed and other states are becoming interested in this branch of the work. Capably administered, this should be an effective method of reducing accidents. Its idea is to make accident prevention a part of the every-day consciousness of the population and the accomplishment of this end is of fundamental importance.

Employers, after years of ignorance and apathy, are fast becoming awakened to the humanitarian and financial gains arising from accident prevention and are expending an immense amount of thought and money to decrease the accident hazard in their plants. The United States Steel Corporation was a pioneer in safety work and has developed its organization and methods to a very high pitch of efficiency. Leading corporations in other lines have also made great advances in the direction of industrial safety and it is only a question of time before every corporation of any size will recognize accident prevention as one of

the most important phases of its activity. Manufacturers of machinery are responding to the demand, and dangerous machines are now carrying guards as regular equipment.¹ The manufacture of safety devices is becoming an independent industry and inventors are constantly working on new ideas for more efficient protection.

One of the greatest aids to the employer in the solution of safety problems is the insurance company. These companies, on the payment of a stipulated premium, assume the liability of the employer to pay damages or compensation to his employees on account of accidents, and one of their chief inducements is the offer of expert advice on safety work whereby the employer may not only reduce his accidents but may also secure substantial reductions in the rate of premium. Competition in this service has developed inspection departments which are of very real economic value. In addition to personal inspection and advice, pamphlets dealing with safety are published, warning signs are furnished, and some companies issue small volumes which are practically text-books of accident prevention.

Two coöperative enterprises for improving safety conditions merit especial mention: the American Museum of Safety and the National Safety Council. These organizations are supported by membership fees and contributions of industrial corporations and public-minded associations and individuals.

¹ One industrial corporation makes a practice, whenever a machine comes to them insufficiently protected, of adding the necessary guards and deducting the cost from the bill for the machine.

The American Museum of Safety, in New York City, is a clearing-house and exhibition place for safety methods and appliances and is modeled after the great safety museums of Germany and other European countries. Safety devices and models have been collected and are displayed for the inspection of anyone interested. A library is also maintained and educational work is carried on through illustrated lectures and the distribution of pamphlets.²

The National Safety Council, with headquarters in Chicago, is the parent organization of large numbers of local councils located in the principal cities. Its chief features are weekly bulletins of statistics and safety illustrations, an information bureau for members, and annual Safety Congresses. These congresses attract safety experts from every industry and the papers and informal discussions are of great value.

Thus far the function of the workman in the prevention of accidents has not been mentioned, though he is an all-important factor in the success of any plan for the promotion of industrial safety. The work of employers and the state can be made effective only through his intelligent and active coöperation and hence all safety organizations are built around the fundamental idea of awakening the interest of the employee in his own welfare. Initiative and administration must come from the employing class, but the greater part of the reduction in accident rates is due directly to the care and efforts of the workers.

Methods of Accident Prevention.—The develop-

² Massachusetts and California have Museums of Safety maintained by the State.

ment of efficient methods for the prevention of accidents must rest on an accurate knowledge of causes. Hence a prerequisite to the establishment of a safety organization and the installation of preventive appliances is a careful study of causes and their relative significance. For example, Illinois statistics show that "falling objects" were responsible for 19 per cent. of the accidents occurring during the six months ending December 31, 1913, and that, in each class of industry, the number attributable to this cause far exceeded that due to any other. These facts would indicate the necessity of giving primary emphasis to the prevention of such accidents and would probably warrant the expenditure of a relatively large amount of attention and money for that purpose. A further study might show that these accidents give rise to comparatively short periods of disability and that another less numerous class results in greater total loss. In that case the emphasis would be shifted. This is but a suggestion of the need for careful scientific consideration of every element of the problem as a basis for effective work.

The simplest method of protecting workmen is the use of mechanical guards to prevent falls and contact with dangerous machinery and to catch flying particles, and tools or materials which may have been dropped. Familiar examples are covers for gears and belting, railings on elevated runways, wire screens before metal chipping machines and strips of metal or wood on the edges of scaffolding. Machines are often redesigned to render their operation safer; devices for stopping machinery are applied and the parts

are made more accessible for cleaning and oiling. Arrangements are also made to prevent setting machinery in motion while men are engaged in repair work, and methods of lighting are used which give the employee the clearest possible view of his work. Warning signs, designed with a view to compelling attention, are used to remind the employee of the presence of danger. Besides signs to guard specific danger zones, large placards and electric signs are placed in prominent positions to keep the idea of "safety first" constantly in the mind of the employee.³

The success of a program of accident prevention should be measured in terms of the consequences of accidents as well as of accident frequency, and every effort should be made to reduce the period of disability due to them. "First aid" is an essential feature of a comprehensive scheme and the larger plants now have their own hospitals with physicians who attend to all injuries free of charge. It is usually required that every injury, no matter how slight, be submitted for examination. Smaller plants have visiting physicians or make arrangements for treatment at some general hospital. This treatment often substitutes a loss of a few minutes for a protracted period of disability, as many apparently slight injuries develop into serious cases of infection if not attended to at the outset.

³ Illustrations of various methods of accident prevention by use of mechanical guards are given on pages 20-23.

For the illustrations of methods of accident prevention used in this chapter the author is indebted to the United States Steel Corporation, with the exception of Illustration III, which was furnished by the Benjamin Electric Mfg. Co.

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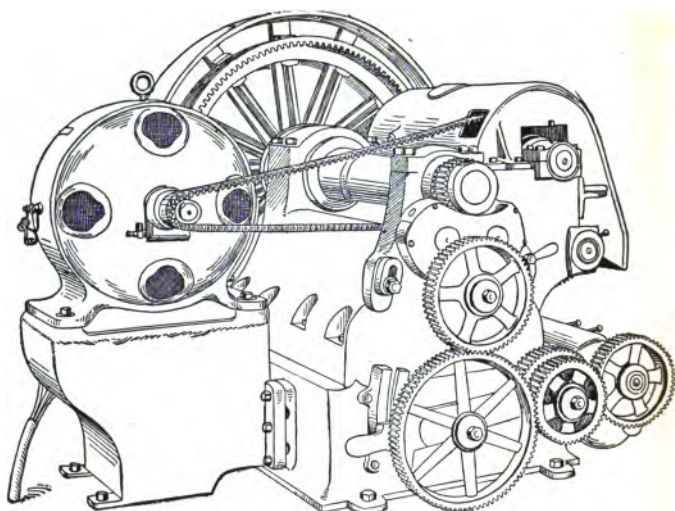


ILLUSTRATION I

Lathe Gears Unguarded.

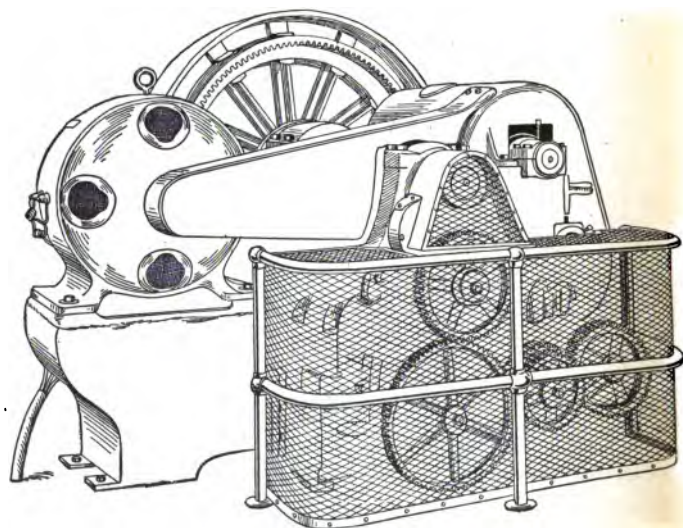


ILLUSTRATION II

Lathe Gears Guarded.



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THE PREVENTION OF ACCIDENTS 21

Carelessness and improper methods of work give rise to many avoidable injuries. These conditions can be corrected only through educational methods. Bulletins are posted wherever the men are likely to read them, magazines are issued in which safety hints are

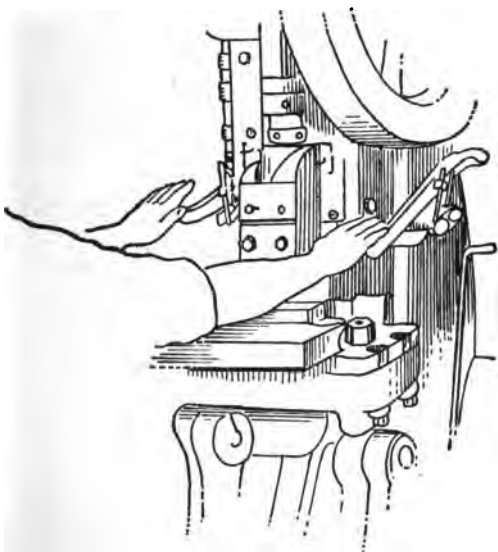


ILLUSTRATION III

Stamping Press Redesigned to Require Placing Both Hands on Levers in Order to Operate Machine.

combined with other topics of general interest. Stereopticon lectures are given by safety experts and in some cases the men are paid to attend. To supplement these general means, individual instruction is given, rule books are distributed, and examinations set, with prizes for correct answers. In every possible way an attempt is made to point out to the workman that it is

to his overwhelming advantage to assist in safety work.

As in all extensive undertakings involving the co-operation of a large number of individuals, organization is the prime essential for the successful operation of a safety system. The proper development of an organization requires careful adaptation of its units to each special branch of work and coördination of the units in a centralized and harmonious scheme. The

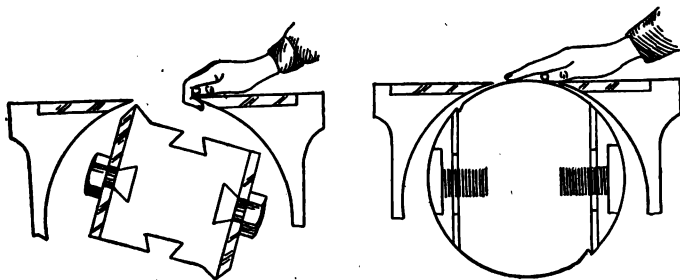
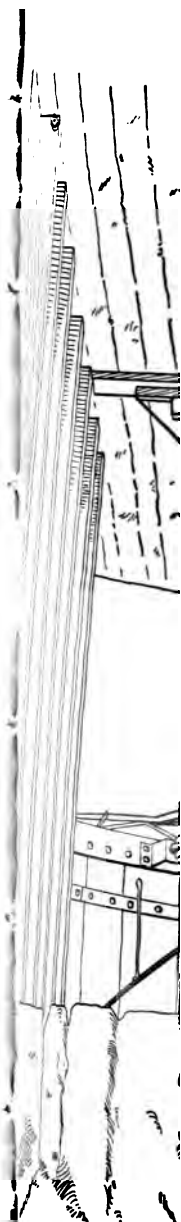


ILLUSTRATION IV

Square and Circular Knife Holders.

organization of the United States Steel Corporation may be taken as an example of the successful solution of this problem. In 1906 a Committee of Safety was appointed from among the officials of the subsidiary companies and, since that date, this committee has been in supreme charge of the safety work of the Corporation. It considers safety methods and appliances, conducts inspections of individual companies, studies serious accidents, and makes recommendations for improvements. As a clearing house for ideas and experience from every section of the Corporation the Bureau of Safety, Sanitation, and Welfare has been



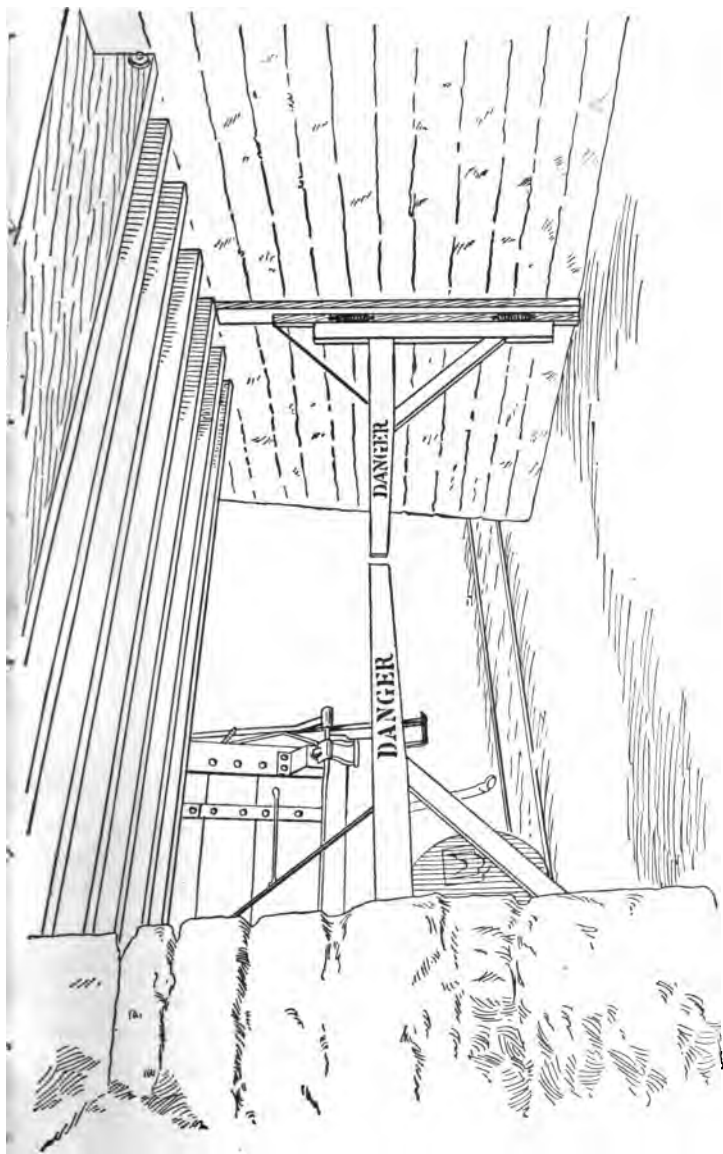


ILLUSTRATION V

A Swinging Safety Gate for Use as a Warning in a Passage Opening on to a Railroad Track or Other Dangerous Place.

COMPENSATION INSURANCE

established. This bureau has headquarters in New York City and is in charge of a general manager whose entire time is given to the collection of statistics and photographs and to the coördination and administration of the safety, sanitation, and welfare work of the Corporation.

Each subsidiary company has its Central Committee of Safety composed of representatives from the department of safety and relief, the legal and the medical departments, and from the various plants.⁴ To assist this committee on special problems subcommittees of master mechanics, electrical engineers, blast furnace superintendents, and others, are consulted. Each plant has its own committee, under which are a safety inspector, special committees, department committees, a safety instructor, and committees of foremen and workmen. Each of these units has in charge the work for which it is best adapted and each connected with the central committee through an unbroken line of responsibility. Frequent meetings are held, inspections are made, and recommendations for improvements are considered, reports on all of these activities being made to the superior committees which take final action.⁵

Although no one of the methods of accident prevention outlined should be neglected, they are not all of equal importance in their results. Mere safeguarding machines can accomplish little without education

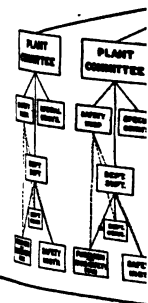
The organization of the Illinois Steel Co. will be treated as typical of the methods in vogue in all subsidiary companies. For a graphic outline of this organization see the diagram on opposite page.

THE PREVENTION OF ACCIDENTS

SAFETY & RELIEF

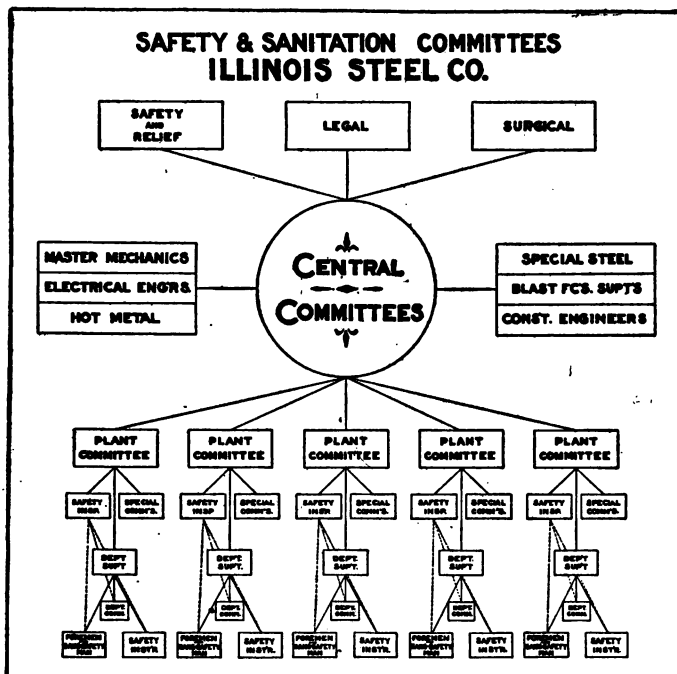
SAFETY
RELIEF

MASTER MECHANICS
ELECTRICAL ENGINEERS
BLAST FURNACE SUPERINTENDENTS



of employees and the scheme depends largely on the work of Robert J. Young, Safety and Relief of the Illinois Steel Co. made the following list of the several methods

Organization
Attitude and personal authority
Safety Committees
Inspections (not by



of employees and the successful carrying out of any scheme depends largely on the organization behind it. Robert J. Young, Manager of the Department of Safety and Relief of the Illinois Steel Company, has made the following estimate of the relative efficiency of the several methods:

Organization	55%
Attitude and personal work of those in authority	30%
Safety Committees.....	20%
Inspections (not by committees).....	5%

Education	25%
Instruction to employees.....	12%
Bonuses, prizes, etc.....	8%
Talks by superintendents, foremen, and others	3%
Signs	2%
Safeguarding	20%
Safety devices.....	12%
Lighting	5%
Cleanliness and order.....	3%

Any such estimate is, of course, not final, but serves as an indication of the relative importance to be attached to various activities in connection with safety work.

Occupational Diseases.—The problem of diseases arising from a workman's occupation is a phase of industrial hazard which has been given less attention than the problem of violent accidents. While less spectacular it is worthy of careful study, and efforts for prevention should take the same direction, with the emphasis on medical care and the prevention of infection.

References at end of Chapter III.

THE RESULTS

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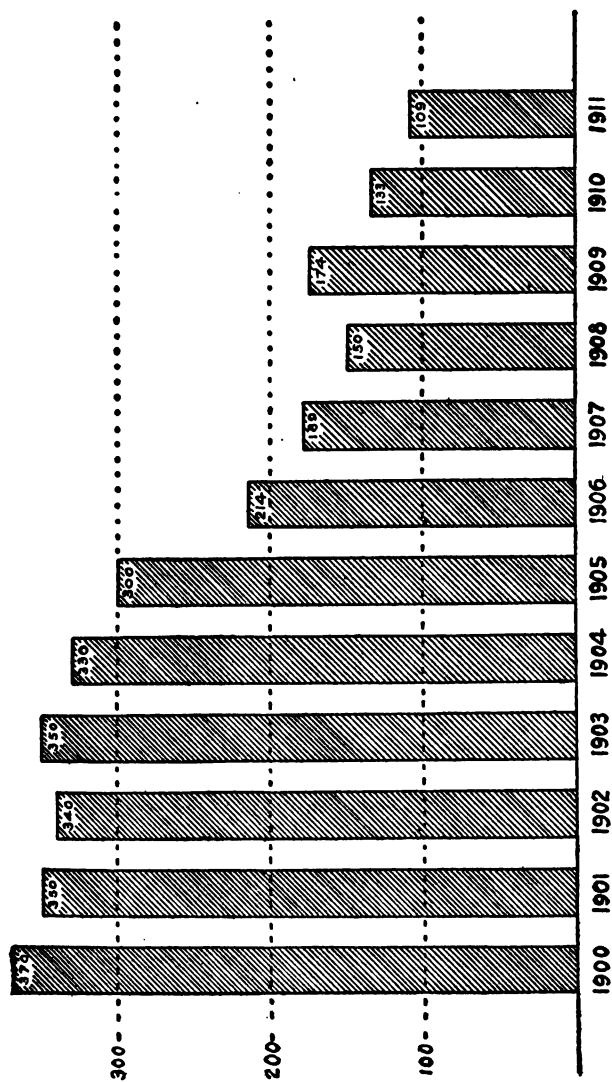
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CHAPTER III

THE RESULTS OF ACCIDENT PREVENTION

Since the aim of accident prevention is reduction of the losses occasioned by industrial accidents, its results should be measured in terms of saving to those who have experienced such losses. Society is benefited by an increase in general productiveness and a decrease in the expense of caring for the injured and their dependents and of hearing damage suits. The employer gains through increased efficiency due to avoidance of friction and greater permanence of his labor force, as well as through lessened expense for insurance or for defending damage suits and paying claims. The employee receives more wages, loses less time, and both he and his dependents avoid suffering and privation. A considerable body of figures exists showing reduced accident frequency and consequent economic saving due directly to organized accident prevention.

Reduction in Accident Frequency.—Reduction in accident frequency is the most immediate and striking result of safety work. A careful record of the disabling injuries occurring in a large steel plant from 1900 to 1911 shows the effect of a developing safety program. These accidents were reduced from 370 per one thousand 300-day workers in 1900 to 109 per



Rates of Disabling Injuries Per 1,000 300-Day Workers in a Large Steel Plant, by Years, 1900 to 1911.

one thousand in 1911, a decrease of over 70 per cent.¹

The diagram on page 28 shows this experience by years. In connection with this diagram the records for the years 1906 and 1909 are particularly significant. "It may be stated that the year 1906 represented a period of thorough reorganization and safeguarding throughout the machine shops and in connection with other mechanical operations and that the accident rate shows a definite response to these efforts."² "Increased output accompanied by 'speeding up' the workmen always increases the danger. The year 1909 was a 'speeding up' year. It was also a year of employment of many new workmen. Its accident rate reflects these conditions."³

In this same investigation a study was made of two plants having extreme conditions as to safety systems. "Plant A stands high on the list of those that have undertaken successfully safety activities. Plant X, on the other hand, is among those which may be said to have done almost nothing in this direction." During 1910 Plant A showed an accident rate of 180 per one thousand 300-day workers, while Plant X had a rate of 508, nearly three times as great.⁴ Another study, in which sixteen plants were classified according to the development of their safety systems, showed the following results:⁵

¹ *Report on the Iron and Steel Industry*, Vol. IV., p. 118.

² *Ibid.*, p. 120.

³ *Ibid.*, p. 121.

⁴ *Ibid.*, p. 59.

⁵ *Ibid.*, p. 43 ff.

	Accident Rates per 1000 300- day workers.
Class A (System well developed)*.....	167.1
Class B (System in process of development) ..	272.4
Class C (System not developed).....	507.9

Further notable examples of reduction in accident rates through safety work are given in the following table:⁷

American Smelting & Refining Company.....	24%
Bucyrus Company.....	65%
Cadillac Motor Company.....	69%
Commonwealth Edison Company.....	40%
Commonwealth Steel Company.....	69%
Corn Products Refining Company.....	37%
Eastman Kodak Company.....	78%
Fairbanks-Morse Mfg. Company.....	72%
George Cutter Company.....	43%
Harrison Bros. & Company, Inc.....	75%
Illinois Steel Company.....	85%
Inland Steel Company.....	35%
International Harvester Company.....	88%

* "The essentials of a safety system likely to prove effective may be summarized as follows. In plants of Class A all the factors specified are present:

1. Safeguarding by signs, warnings and mechanical contrivances.
2. Adequate safety inspection.
3. Safety committees of superintendents and foremen.
4. Safety committees of workmen.
5. Emergency and hospital care of the injured.
6. A compensation system.
7. Provision for the permanently disabled."

⁷ These figures are printed through the courtesy of The American Museum of Safety.

RESULTS OF ACCIDENT PREVENTION 31

Jones & Laughlin Steel Company.....	78%
A. J. Lindemann & Hoverson Company.....	62%
Milwaukee Coke & Gas Company.....	83%
Neenah Paper Company.....	83%
Packard Motor Car Company.....	72%
The Pullman Company.....	46%
Raritan Copper Works.....	22%
Rochester Railway & Light Company.....	33%
United States Steel Corporation.....	41%

(The reduction of the accident rate is, to a certain extent, cumulative since continuity of employment tends to a further reduction of the rate. A new man, employed because of the incapacity of the injured employee, is much more subject to accidents than one who has worked continuously.)

Reduction in Loss of Time and Wages.—From an economic point of view the chief index of loss from accidents is the loss of time. In a large steel plant, employing 6,624 men the total time lost was reduced from 22,963 days in 1905 to 18,002 days in 1910, a saving of 4,961 days through the adoption of safety measures. The average number of days lost per 300-day worker was reduced from 4.28 in 1905 to 2.96 in 1910.⁸ Assuming a wage of \$2.00 per day, this represents a saving during the year 1910 of \$9,922 for the working force of the plant, and of \$2.64 for each 300-day worker. In two plants having extreme conditions as to safety systems, there was, during 1910, a difference of 6.1 days per 300-day worker in favor of the plant with a well developed system, representing

⁸ *Report on the Iron and Steel Industry*, Vol. IV., p. 57.

a wage saving of \$12.20. In Wisconsin safety work has resulted in large reductions in the number of days lost⁹ and it is probable that, were figures available, the same results would be evident in other states.¹⁰

The Massachusetts Industrial Accident Board has published a study¹¹ showing the results of a campaign to secure the installation of safety devices and organizations. These figures may be slightly inaccurate owing to the fact that, during the second of the periods considered, the assumption was made that there had been no change in the number of employees in the various plants. Even with this qualification, the study is extremely valuable and the results may be considered as approximately correct. Data were first collected for the six-months' period ending December 31, 1913, from factories employing a total of over 55,000 men. During the succeeding six months inspections of the factories were made and, on the basis of the inspections and an analysis of the data, recommendations were made for improvement, and employers were urged to adopt effective means for promoting safety. As a measure of the success of the campaign figures were again collected for the six months ending December 31, 1914, and these were compared with the corresponding data for the preced-

⁹ See "Organized Accident Prevention," by C. W. Price.

¹⁰ The figures given in this paragraph have reference only to the loss of time occasioned by non-fatal accidents. The reduction in loss through death, computed on a basis of working-life expectancy, would add greatly to their significance but the necessary information is not available.

¹¹ Massachusetts Industrial Accident Board, *Bulletin No. 13*, October, 1915.

RESULTS OF ACCIDENT PREVENTION 33

ing year. This comparison gave the following results:¹²

REDUCTIONS IN ACCIDENT FREQUENCY AND GRAVITY

	%
Reported accidents.....	20.8
Disability cases.....	20.3
Days lost.....	36.8
Wage loss.....	36.0
Compensation cases.....	28.6
Compensation days.....	44.2
Compensation paid.....	41.1

A reported accident is one for which a notice of injury was sent in by the employer, it being required that all accidents, however slight, be reported to the Board. "A disability case is one in which there was disability on any day or shift other than the one on which the injury occurred," and a day lost is any such other day. The wage loss is secured from the accident reports. A compensation case is one on account of which payments were made under the compensation act for total disability, the act providing that compensation shall be paid after the first two weeks of disability only. A compensation day is one for which payment was made and the item of "compensation paid" represents the actual amount received for cases of total disability.

Net Saving.—So far only gross saving has been considered, but to analyze the situation accurately the *net saving* should be determined, for accident preven-

¹² *Ibid*, p. 15.

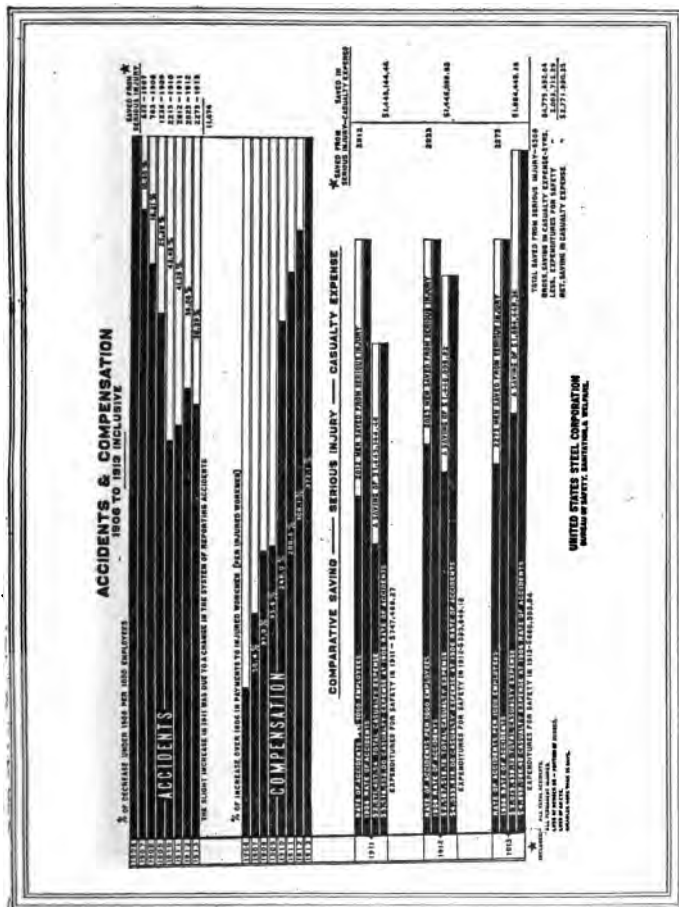
tion involves large expenditures and its results should be judged in comparison with the cost of obtaining them. Such a judgment must be based on a broad interpretation of the terms "results" and "costs," for they include some items which cannot be numerically expressed and others the value of which is not readily ascertainable. For example, suffering cannot be expressed in figures nor is the value of a decrease in friction and labor troubles easily computed. Another difficulty in making an accurate judgment at present arises from lack of experience and incompleteness of data. In the greater number of plants accident prevention is a development of the last two or three years and in few have trustworthy records been kept even for that length of time. In only one published report has it been possible to find a statement of the money saving as compared with expenditures for accident prevention. The United States Steel Corporation reports a gross saving in casualty expense for serious injuries of \$4,775,692.64 during the years 1911, 1912 and 1913. The expenditures for safety which produced this saving amounted to \$2,003,712.29, leaving a net saving of \$2,771,980.35.¹³

Such figures indicate very definitely that the prevention of accidents may result in financial saving to the employer and it is the opinion of most employers who have adopted active safety measures that a net saving is actually produced. The statements that "safety work is indispensable to an efficient manufacturing organization" and that "in our opinion there is

¹³ U. S. Steel Corporation. Bureau of Safety, Sanitation & Welfare. *Bulletin No. 5*, Dec., 1914. See diagram, p. 35.

RESULTS OF ACCIDENT PREVENTION 35

no question that all efforts towards 'safety first' are good business and produce profits" are examples of



this attitude. In addition, the fact that those corporations which have long had a reputation for "hard-

headed, practical business sense," are leading in safety work is evidence of its probable contribution to profits.

CONCLUSION

It has been shown that an immense number of industrial accidents which cause large losses to society and to particular classes of society occur every year, and that the burden of these losses falls most heavily on the working class, the group least able to bear it. Responsibility for the occurrence of a large share of these accidents has been definitely assigned to present methods of conducting industry. Further, it has been demonstrated that a considerable percentage of industrial accidents may be prevented by the adoption of thoroughly practicable safety measures. That the adoption of such measures results in a tremendous economic saving to society and to individuals is unquestioned; that this saving more than counterbalances the economic cost of prevention is almost certain. If the relief of suffering and privation is considered, all doubt of the desirability of active measures of prevention is removed.

But even the most thoroughgoing efforts to prevent industrial accidents have not succeeded in eliminating them entirely and their total elimination is inconceivable so long as the human being is a factor in industry. The greater part of our industries have not even reached this irreducible minimum, for many employers still regard safety work as a "socialistic fad" and effective compulsion is exercised in but few states. Accidents, preventable and unpreventable, happen every day and create a problem that demands solution.

RESULTS OF ACCIDENT PREVENTION 37

For the problem of preventable accidents there is only one solution. For those which can not be prevented some means of compensation for economic loss should be provided.

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PART II

**EMPLOYERS' LIABILITY AND WORKMEN'S
COMPENSATION**



CHAPTER IV

THE LAW OF NEGLIGENCE AS APPLIED TO THE RELATION OF MASTER AND SERVANT

The Law of Negligence.—The law of negligence is a branch of the common law and consists of a set of rules for determining the legal liability of one person to another for injuries caused by an unintentional neglect of duty. In any given case it is attempted to determine who is at fault (*i. e.*, guilty of negligence), and to assess damages upon the guilty party for the benefit of the person injured by the fault. Actionable negligence may be defined as follows: "Negligence, constituting a cause of civil action, is such an omission, by a responsible person, to use that degree of care, diligence and skill which it is his legal duty to use for the protection of another party from injury as, in a natural and continuous sequence, causes unintended damage to the latter."¹ An analysis of this definition reveals the essentials of a cause of action for negligence:

"Negligence consists in:

1. A legal duty to use care;
2. A breach of that duty;
3. The absence of distinct intention to produce the precise damage, if any, which actually follows.

¹ *Shearman and Redfield on the Law of Negligence*, § 3.

"With this negligence, in order to sustain a civil action, there must concur:

1. Damage to the plaintiff;
2. A natural and continuous sequence, uninterruptedly connecting the breach of duty with the damage, as cause and effect."²

Before 1837 there were no cases on the liability of a master to his servant³ and the law of negligence was applied wholly as between the master and third parties to whom he was liable for injuries caused by his own negligence or by that of his servant.⁴ Blackstone, in his Commentaries, makes no mention of the master's liability to his servant. The law of negligence was not applied to the internal affairs of an industrial group, probably for the reason that, in early times, such groups were on much the same basis as the family and regulation of the personal relations of the members was accomplished without appeal to the courts.

EMPLOYERS' LIABILITY

Beginning with Lord Abinger's decision in the case of *Priestly v. Fowler*,⁵ there has grown up a body

² *Shearman and Redfield on the Law of Negligence*, § 5.

³ The terms master and servant are used in law as synonymous with the ordinary usage of employer and employee.

⁴ "It is an old and thoroughly established doctrine that, where the relation of master and servant exists, the master is responsible to third persons for the damage caused by the wrongful acts or omissions of his servants, in the course of their employment as such." *Shearman and Redfield, op. cit.*, § 141. This rule is known as the doctrine of *respondeat superior*.

⁵ 3 M. & W. 1 (1837).

of law defining the liability of an employer to his servant for personal injuries. The law of employers' liability follows the general principles of the law of negligence but has some features peculiar to itself.⁶ There are certain legal duties of protection which the master owes to his servant, to whom he is liable in damages for the injurious consequences of his neglect to use due care in the performance of such duties.⁷ These duties are:⁸

1. To employ suitable fellow servants.

The master must "use reasonable care in selecting suitable and sufficient co-servants."

2. To establish and promulgate proper rules.

The nature of the rules required is determined by the character of the business—some employments requiring no rules. "Ordinary diligence" in establishing and enforcing rules is sufficient.

3. To provide a safe place to work.

"It is the master's duty to exercise reasonable care in furnishing those things which go to make up the plant and appliances, so as to have them at the outset reasonably safe

⁶ There is some dispute among authorities as to whether these features are a natural application of the established principles of the common law of negligence or are the result of the economic philosophy of the judges with respect to the peculiar relation of master and servant. For discussions from different points of view see Bohlen, "Voluntary Assumption of Risk," and Burdick, "Is Law the Expression of Class Selfishness?"

⁷ *V. supra*, analysis of definition of negligence, pp. 41, 42.

⁸ Burdick, *The Law of Torts*, pp. 184 ff.

for the work of the servants who are engaged in the general employment, and further, to exercise reasonable care, by means of inspection and repairs, when needed, to keep the plant and appliances reasonably safe.' " 9

4. To furnish safe appliances.¹⁰

5. To warn of danger.

The master must warn his servants and give them suitable instructions where he knows that the employment is dangerous or would discover it with due care, and where he has reason to believe that the servant does not know of the danger and would not discover it. The master's duty is to do "what a prudent master would naturally do."

If the master has properly performed all of these duties he cannot be held liable for injuries to a servant arising "out of and in the course of his employment." The test of performance in each instance is relative; there must be a reasonable compliance with the duty, taking into consideration the circumstances, the nature of the business, and the usual methods of conducting it. "*Reasonably safe* means safe according to the usages, habits, and ordinary risks of the business.' " ¹¹ In no case is the master deemed to be

⁹ *Smith v. Erie Ry. Co.*, 67 N. J. L. 636, quoted by Burdick.

¹⁰ *V. supra*, under third duty of master.

¹¹ *Titus v. Bradford, etc., Ry.*, 136 Pa. 618, quoted by Burdick. Italics not in original.

a guarantor of the safety of his employees; his duty extends only to the exercise of proper diligence. These duties are, however, personal and the master can not relieve himself of responsibility for their performance by delegating them to another.

Proof of Liability.—[The servant, in order to recover damages for a personal injury, has the burden of proof of two points: first, that the master failed to exercise due care in the performance of his duties; and second, that his failure was the proximate cause of the injury.] To establish the first point it must be shown that one or more of the requirements of due care, as outlined above, has not been complied with; to establish the second, it is necessary to show that the absence of due care operated efficiently through an unbroken chain of events to produce the injury complained of.

In an action brought by a servant to recover damages for personal injury the master may avail himself of certain well-defined defenses. He may allege that the servant assumed the risk of his injury, that the injury was caused by the negligence of a fellow-servant, or that the plaintiff contributed negligently to its occurrence. [The principles governing these defenses have been embodied in three legal doctrines; the doctrine of assumption of risk, the doctrine of common employment, and the doctrine of contributory negligence.]

Assumption of Risk.—Under the doctrine of assumption of risk it is held that a master is not liable to his servant for injuries resulting from the ordinary risks of employment of which the servant is fully

aware. "The general rule, resulting from considerations as well of justice as of policy, is, that he who engages in the employment of another for the performance of specified duties and services, for compensation, takes upon himself the natural and ordinary risks and perils incident to the performance of such services. . . ." ¹² While the principle of this doctrine is not peculiar to the relation of master and servant, it is most frequently used in actions involving that relation, and some courts have held that assumption of the risks of employment is an implied term of the contract of service. In certain states the doctrine has been applied to relieve the master of liability arising from actual negligence or from violation of statutes requiring the installation of safety devices where it could be shown that the servant had knowledge of the master's conduct. ¹³

Common Employment.—The doctrine of common employment or the "fellow-servant rule" relieves the employer of liability if he can show that the accident on account of which damages are sought was the result of negligence on the part of a fellow-servant of the injured employee. In its most extreme form it is applied to all servants working for the same master, regardless of the nature of their duties. The doctrine was suggested in the decision in *Priestly v. Fowler*, ¹⁴ an English case, but was first definitely stated in *Mur-*

¹² *Farwell v. B. & W. R. R. Corp.*, 38 Am. Decis. 339 (1842).

¹³ The master, however, is generally held liable for injuries arising from a defect which he has promised to remedy, for a reasonable time after the promise is made.

¹⁴ 3 M. & W. 1 (1837). The decision of the point at issue in this case did not involve the application of the fellow-servant rule.

*ray v. South Carolina Railroad Co.*¹⁵ in 1841. In this case a fireman brought suit for injuries caused by the negligence of an engineer who refused to alter the speed of the train, even after his attention had been called to an obstacle on the track which gave rise to the accident. In his opinion Justice Evans asserted that the plaintiff assumed the risk of the negligence of his fellow-servants and he was not allowed to recover damages. There was, however, a very strong dissenting opinion.

While the South Carolina decision stands first in point of time, the case of *Farwell v. Boston and Worcester Railroad Corporation*¹⁶ has become the leading case both in this country and in England. Chief Justice Shaw stated in his opinion that the rule that a master should be liable for the acts of his servants presupposed that the master and the person injured "stand to each other in the relation of strangers"—and that therefore Farwell, an engineer, could not recover on the ground that the corporation was responsible for the acts of a switch-tender by reason of whose negligence it was alleged he had been injured. If liability was to be proved it must be shown that there was a contract of indemnification, express or implied. But the court held that the assumption of the ordinary risks of the business by the servant was an implied term of the contract of employment, the compensation, "in legal presumption," being adjusted accordingly; and that the risk of a fellow-servant's negligence was an ordinary risk of the

¹⁵ 36 Am. Decisions 268.

¹⁶ 38 Am. Decis. 339.

employment. "We are not aware of any principle which should except the perils arising from the carelessness and negligence of those who are in the same employment. These are perils which the servant is as likely to know and against which he can as effectually guard, as the master. They are perils incident to the service, and which can be as distinctly foreseen and provided for in the rate of compensation as any others."

Whether this rule is an exception to the doctrine of *respondeat superior* or a perfectly natural and logical application of the doctrine of assumption of risk is a mooted point. It is sufficient to note that it is applied only to the relation of master and servant.

Contributory Negligence.—Under the older doctrine of the common law one who was injured by the negligence of another was nevertheless barred from the recovery of damages if he had, by his own negligence, in any way contributed to the occurrence of the injury. The present doctrine is less harsh, but contributory negligence will still bar recovery if it is a direct cause of the injury.

Burden of Proof.—In an action to recover damages from a master on account of injury the burden of proof is on the plaintiff to show:

1. That the master was negligent in the performance of his legal duties.
2. That the negligence of the master was the proximate cause of the injury.
3. If the injury was caused by the negligence of

another servant, that he was not a fellow-servant.

Provided the plaintiff has established the above points, in order to escape liability the burden of proof is on the defendant to show:

1. That the servant assumed the risk of the injury,
or
2. That the servant by his own negligence contributed to the occurrence of the injury.¹⁷

Death Limitation.—The common law doctrine that right of action for personal injury expires with the death of the person injured¹⁸ also operates to relieve the employer of liability.

Contracting Out.—It has been the practice of some employers to require their employees to sign a contract exempting them from all liability on account of personal injury, and such contracts have been sustained under the common law.

MODIFICATIONS OF THE COMMON LAW

The common law of employers' liability has been modified to a considerable extent, both by statute and by judicial interpretation. The doctrine of assumption of risk has been made inoperative in the case of injuries arising through the violation of safety stat-

¹⁷ While this is the rule in England, in the U. S. Supreme Court, and in the majority of the state courts, the courts of certain states place the burden of proof on the plaintiff to show an absence of contributory negligence. This is true of the courts of Conn., Ill., Ind., Ia., La., Me., Mass., Mich., Miss., N. Y. and N. C.

¹⁸ *Actio personalis moritur cum persona.*

utes by the employer,¹⁹ and the doctrine of comparative negligence, to the effect that damages shall be reduced in proportion to the negligence attributable to the employee, has, in some instances, replaced the ruling that contributory negligence is an absolute bar to recovery.²⁰ "Contracting out" has been prohibited in practically every state, and the death limitation has been removed to permit surviving relatives to recover damages for the death of an employee. The burden of proof has, in some states, been shifted so as to lay a heavier responsibility on the employer.

Modifications of the Fellow-servant Rule.—The doctrine of common employment has been modified to a great extent, both by limiting the definition of a fellow-servant and by depriving the employer entirely of this means of defense. In its extreme application the common law considers all employees of the same master to be fellow-servants. But many courts have used other tests than that of mere common employment to determine the status of a servant in relation to another who has been injured through his negligence. One test is based on the nature of the act performed—if the servant is "employed to perform an act, incident to any of the five classes of duties which the law imposes upon the master . . . he is, as to that act, a *vice-principal*"²¹—a true representative of his master—and his negligence is the master's negligence. If employed to do any other act, he is a mere servant, no matter what his rank, and for in-

¹⁹ E. g., Ohio, Mass., Federal Employers' Liability Act.

²⁰ E. g., Cal., Ga., Ore., Federal Employers' Liability Act.

²¹ Italics not in original.

juries resulting to fellow-servants from his misconduct, the master is not liable.”²² This test has been adopted by the Supreme Court of the United States and by most of the state courts. A second test is that of the rank or grade of employment of the servant through whose negligence the injury is caused—“‘where one servant is placed by his employer in a position of subordination to, and subject to the orders and control of another, and such inferior servant, without fault, and while in the discharge of his duties, is injured by the negligence of the *superior servant*,²³ the master is liable for such injury.’”²⁴ This rule, which originated in Ohio, has been accepted by the courts of several states,²⁵ while others have incorporated it in statutes.²⁶ A third test is provided by the different department, or consociation, rule. “Under this rule servants in different departments” or those “not brought into such personal relations that they may exercise an influence upon each other promotive of their mutual safety, are not fellow-servants.”²⁷ It has been adopted by the courts in seven states²⁸ and has been applied to railroads by statute in five.²⁹

Statutes have also been passed completely abrogat-

²² Burdick, *The Law of Torts*, p. 207.

²³ Italics not in original.

²⁴ *Berea Stove Co. v. Kraft*, 31 Ohio St., 287 (1877), quoted by Burdick.

²⁵ Ill., La., Neb., Tenn., Tex., Utah, and in a modified form, Ky.

²⁶ Ala., Mass., N. Y., N. J., Vt., Penn., and as to railroads, Miss., Mo., O., Ore., S. C., Utah, Va.

²⁷ *Bailey on Personal Injuries*, p. 1551.

²⁸ Ill., Ky., La., Mo., Neb., Utah, and as to railroads, Tenn.

²⁹ Miss., Mo., S. C., Utah, Va.

ing the fellow-servant rule³⁰ or abolishing it in certain industries.³¹ In general the various "fellow-servant statutes" may be classified under five heads:

1. Statutes entirely abolishing the defense of fellow-servants as to all employers and all employees.
2. Statutes entirely abolishing the defense of fellow-servants as to employees of railroads.
3. Statutes limiting the defense of fellow-servants as to employees generally.
4. Statutes limiting the defense of fellow-servants as to all corporations.
5. Statutes limiting the defense of fellow-servants as to employees of railroads.
6. Statutes merely declaratory of the common law rule. Most of such statutes have been repealed by later statutes.³²

HISTORICAL DEVELOPMENT

The first attempt to modify the common law of employers' liability by statutory enactment was made in England in 1880, when "The Employers' Liability Act" was passed by Parliament. This act provided for a modification of the fellow-servant rule and enabled the personal representatives of a deceased em-

³⁰ Cal. and Colo.

³¹ For a complete consideration of this point see Bailey, *op. cit.*, p. 1553 ff.

³² This classification is given in Bailey, *op. cit.*, pp. 1553-54. Volume II. of this work is wholly given over to the employer's defenses and their modification.

ployee to recover damages for death caused by negligence. The first statute to be passed in this country was enacted in Alabama in 1885 and was followed by the Massachusetts act of 1887. Both of these "employers' liability acts," as well as those of several other states, were modeled closely after the English statute. A majority of the states have now passed laws defining an employer's liability to his employee, practically all of which are in the nature of a limitation on the employer's defenses. A federal statute was enacted in 1908 to apply to inter-state railroads.

The law of employers' liability has developed in sympathy with the trend of law and opinion in other fields. When the first cases involving the relation of master and servant were decided the doctrines of individualism and *laissez faire* were widely accepted and the early decisions reflected the prevailing philosophy. To be sure, the rules laid down in employers' liability cases can be deduced from established principles of the general law of negligence but the rigidity of their application depends largely on the economic philosophy of the presiding judge. Reasoning from the principle of *respondeat superior*, it would seem that the master could be held liable for the consequences of acts of fellow-servants quite as logically as he was exempted from them under the assumption of risk doctrine. Speaking of the fellow-servant rule an eminent English jurist says, "The Courts, between 1830 and 1840, curtailed the extent of an employer's liability by grafting upon it an anomalous limitation. . . . It belonged to the era of individualism, and was sup-

ported by the economic theory, of dubious soundness, that when a person enters into any employment . . . the risks naturally incident to his work are taken into account in the calculation of his wages."³³ That Chief Justice Shaw in the *Farwell* case did not base his decision wholly on grounds of strict legal logic is evident from his statement that "it is competent for courts of justice to regard considerations of policy and general convenience, and to draw from them such rules as will, in their practical application, best promote the safety and security of all parties concerned." So in cases involving the doctrines of contributory negligence and assumption of risk the tests of the circumstances which shall justify their application are quite likely to be colored by the economic philosophy of the judges. It has already been pointed out that tests of varying severity have been applied under the fellow-servant rule to determine who shall be considered fellow-servants.

With changes in the organization and methods of industry the inadequacy of the philosophy of *laissez faire* and the injustice of the common law principles of employers' liability became increasingly evident and there developed a desire to remove some of the limitations on the employee's right of recovery. That this desire manifested itself largely in the form of statutes is probably due to the fact that legislative bodies are more responsive to public opinion than is the bench, and also because judges are loath to run counter to a well-established body of legal doctrine. It was nat-

³³ Dicey, "Law and Opinion in England," p. 280.

ural that the fellow-servant rule, which gave rise to the greatest injustice, should first be attacked, and the early "employers' liability acts" had as their main purpose the placing of an injured servant in the same legal position as a stranger if the injury was caused under certain circumstances. These laws also removed the death limitation but limited the amount which might be recovered either by the injured servant or by his heirs.³⁴ These and succeeding statutes have attempted to equalize the advantages of employer and employee and have put into effect a philosophy which recognizes that individualism means exploitation and that the state must lay down positive rules to secure justice between master and servant.

The Federal Employers' Liability Act of 1908, modifying all of the old doctrines by which the employer sought to escape liability, is in marked contrast to the earlier statutes which attempted to remove only the most evident defects of the common law.

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³⁴ cf. Mass. Employers' Liability Act of 1887.

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CHAPTER V

CRITICISM OF THE SYSTEM OF EMPLOYERS' LIABILITY

The system of employers' liability proceeds on the theory that the economic loss occasioned by an industrial accident should be borne by the person injured unless he can show that some other person is directly responsible, through a negligent act or omission, for the occurrence of the accident. If such personal responsibility can be proved the guilty party is liable in damages which are supposed to compensate for the loss sustained because of the injury. This does not mean that the employee is considered to have been at fault in the event that he is unable to attach liability to another. Many accidents arise from the methods of carrying on a business, responsibility for which must be assigned to conditions rather than persons. The concept of *personal fault* which is at the basis of employers' liability prevents recovery for the results of accidents of this nature and the workman must bear the loss incurred. All of which is but one phase of the general philosophy of *laissez faire* which holds that men should bear the consequences of their own conduct and of the normal conditions in which they find themselves.

Liability on the part of an employer may be estab-

lished only by means of a suit at law. The courts, in determining the existence of fault as a basis for liability, are guided by the rules of negligence law and by the various statutes which have been passed in modification of these rules. It is, therefore, to be borne in mind that, in order to collect damages, an employee must prove *legal liability*, which may or may not coincide with one's ideas of moral liability and justice.

That dissatisfaction with the operation of the law of negligence in its extreme form has been widespread is evident from the universal enactment of statutes designed to extend the liability of employers and to facilitate recovery by workmen. Limitations have been removed, responsibility has been broadened, and a new body of law created. But even the continued attempts of law-makers over a period of nearly forty years have failed to produce a system of employers' liability which satisfactorily adjusts the distribution of economic loss. Such attempts, where they have not been defeated by the extremely conservative interpretation of the courts, have resulted only in removing some of the more striking defects of the system.

A criticism of the practical operation of employers' liability should seek to determine to what extent it accomplishes its fundamental purpose, the solution of the problem created by industrial accidents. In so far as that purpose is not completely accomplished the system is defective and it should be corrected or other means adopted to the same end. The employing and employed classes as well as society at large are concerned in its contribution.

The Employee's Criticism.—1. A large share of industrial accidents are entirely uncompensated and the economic loss resulting from them must be borne by the workman or his dependents. Figures collected by the New York Employers' Liability Commission show that, of 114 fatal industrial accidents occurring in Erie County during the years 1907 and 1908, 33.3% were entirely uncompensated; and of 67 fatal cases in the Borough of Manhattan during 1908, 26.9% were not compensated.¹ In Wisconsin no compensation was paid in 72 out of a total of 306 non-fatal cases, or 23.5%²

A study of conditions in Pittsburgh showed that no payment of compensation was made in 59 out of 235 cases of married men killed in industry, a percentage of 25.1.³

Nine insurance companies doing business in New York reported that payments were made to employees under policies assuming the employers' liability risk in only one case for every eight notices of accident.⁴ Investigations in other states have shown similar conditions to exist.

2. Where compensation is obtained it bears no true relation to economic need. The table on page 60 shows the complete results of the Erie County study mentioned above, the amount of compensation recovered being:

¹ *Report to the Legislature of the State of N. Y.*, 1910, p. 20.

² *Reports of the Bureau of Labor and Industrial Statistics*, V. 13, p. 54.

³ Eastman, "Work Accidents and the Law," p. 121.

⁴ *Report to the Legislature of the State of N. Y.*, 1910, p. 25.

	0 in 38 cases	} 81 out of 103, or 78.6% of closed cases.
\$100 or less in 9	"	
\$101 to \$500 in 34	"	
\$501 to \$2000 in 14	"	
Over \$2000 in 8	"	
Suit pending in 11	"	
<hr/>		
Total	114 cases	

Seventy-eight and six-tenths per cent of the families where decisions had been rendered received \$500 or less as the entire compensation to pay funeral expenses and replace the earnings of the workman. The Labor Department of New York investigated ten cases in which accidents had left the workmen in a totally helpless condition for the remainder of life; in one of these the suit was still pending and, in the other nine, three received nothing, while none of the six remaining received over \$500. The records of the Wayne Circuit Court of Michigan show that, of twenty-two men partially disabled for life, twelve received no compensation, while the remaining ten were awarded amounts varying from \$200 to \$5,750.⁵ In her study of accidents in the Pittsburgh district Miss Eastman found that "for the death of 53 per cent of the married men, and 65 per cent of the single men contributing to the support of others, no compensation above reasonable funeral expense was made; in the injury cases, 56 per cent of the married men, 66 per cent of the single contributing men, and 69 per cent of

⁵ *Report of the Employers' Liability and Workmen's Compensation Commission, 1911.*

the non-contributing men received nothing to make up for lost income." ⁶ After an extensive comparison of economic loss to workmen and receipts from employers the New York Commission says that their figures strengthen the conclusion "that the bulk of the accident loss is borne by the injured workmen and their families. They [the figures] emphasize also the fact that the results of the present law are arbitrary and unequal, that a few of the injured get large verdicts while many get nothing. Thus, in the temporary disability cases a comparison of totals shows that employers paid nearly one-third of the loss, but yet in 44 per cent of these cases they paid nothing. In permanent partial disability cases, payments from employers averaged one-third of the loss until return to work, and yet over one-third of these disabled men received nothing. In the 111 fatal cases compensation averages 17.1 per cent of the first three years' loss, but nearly half of the dependents got nothing." ⁷

Commenting further, the same body says, "From our detailed investigation, borne out as it is by the results of similar studies in states where the same general law prevails, and strengthened by testimony given before us, we are brought to the conclusion that under our employers' liability laws a large proportion (over 50 per cent) of the workmen injured by accidents of employment and the dependents of those killed get nothing or next to nothing, and that

⁶ "Work Accidents and the Law," p. 127.

⁷ *Report to the Legislature of the State of New York, 1910, p. 23.*

only a very small proportion recover an amount that is in any way commensurate with their loss." ⁸

3. In order to recover damages it is necessary for the plaintiff to sacrifice a considerable portion of the gross amount in lawyer's fees and costs. The Labor Department of New York found that in 151 accident cases, 97 of which were settled directly between the parties, "the total amount of plaintiffs' fees and costs amounted to 22.7 per cent of the total gross receipts from employers." The contingent fee system, under which a lawyer agrees to prosecute a case in return for a percentage of whatever damages he may recover, is a large factor in increasing legal costs. Agreements of this type are common in employers' liability cases since the workman is usually unable to employ an attorney on any other basis and since "ambulance chasers," the crooks of the legal profession, actually solicit this kind of business.⁹ In New York the following results were obtained in an investigation of 51 cases.¹⁰

Size of Fee	No. of Cases
Less than 25 per cent in.....	14
25 per cent to 34.9 per cent in.....	16
35 per cent to 49.9 per cent in.....	7
50 per cent and over.....	14
<hr/>	
Total	51

⁸ *Report to the Legislature of the State of New York, 1910, p. 26.*

⁹ The workman is, of course, at a great disadvantage in being obliged usually to employ an inferior attorney.

¹⁰ *Report to the Legislature of the State of New York, 1910, p. 31.*

And these conditions are in no way peculiar to New York.

4. Compensation is frequently received only after long delay spent in litigation. The courts are so overloaded with work that delays of two years in bringing cases to trial are not uncommon and when it becomes necessary to follow a case through a succession of appeals it may take eight years or more before a final verdict is reached. During all this time the workman or his dependents are receiving no compensation and may be undergoing additional expense for medical treatment or court costs.

The Employer's Criticism.—1. The employer has been forced by the system to pay out large sums of money for the defense of claims and in satisfaction of verdicts, much of which has failed to reach his injured men. If he employs an insurance company to fight claims a half or more of his premiums goes to pay the salaries of officers, the commissions of agents, and the expenses of conducting the insurance business. If he maintains a claim department of his own he must employ expert lawyers, bear the court costs in litigated cases, and satisfy claims which are compromised or in which an adverse verdict is rendered by the courts.

2. Friction between employer and employed often arises out of claims for damages whether or not they reach the stage of law-suits. The workman feels that he should get compensation for injuries incurred in the course of employment while the employer is inclined to think that any aid he may give is a matter of generosity rather than of duty. If the question

comes before the courts the friction is increased and the enforced expenditure creates actual antagonism. The New York Commission says: "That the present law, with its uncertain and uneven chances, promotes distrust and ill-will between employers and employees to a serious extent we are convinced from the testimony of both. In our public hearings and in the replies received to our inquiries this was a very frequent complaint."¹¹ That this situation results in lowered efficiency cannot be doubted.

Society's Criticism.—Since the aim of organized society is to promote the best interests of all the classes composing it, any system which operates to the disadvantage of a class is to some extent opposed to the purposes of society itself. Therefore society is concerned with the criticisms of the employer and of the employee and should seek to remove the conditions which give rise to them.¹² But there are other defects which do not concern these classes so intimately and which do affect society at large.

1. The cost of hearing negligence cases represents a very large share of the expense of maintaining the courts. Estimates vary in assigning anywhere from one-fifth to two-thirds of the time of the courts to this form of litigation.

2. Uncompensated or insufficiently compensated industrial accidents give rise to economic dependence

¹¹ *Report to the Legislature of the State of New York, 1910, p. 33.*

¹² This is particularly true of the economic waste involved in lawyer's fees and the maintenance of claim organizations which serve no constructive purpose.

and destitution, the burden of which is transferred to society through various forms of charitable relief.

3. Other less specific evils are the bad moral effect of enforced pauperization, and the misrepresentation and perjury induced by the desire to win law-suits.

Summary.—The defects of the system have been ably summarized as follows:—

“1. It is wasteful:

(a) The state expends a large amount in fruitless litigation.

(b) Employers spend a large amount, as the result of work-accidents, only a small part of which is actually paid in settlement of accident claims.

(c) The injured employees spend nearly half of what they get in settlements and damages to pay the costs of fighting for them.

“2. It is slow; recovery is long delayed, while the need is immediate.

“3. It fosters misunderstanding and bitterness between employer and employees.

“4. It encourages both parties to dishonest methods.”¹⁸

Other Attempts to Solve the Accident Problem.—

Three other methods of solving the economic problem of industrial accidents have been tried; the encouragement of saving by the workman, industrial accident insurance, and corporate relief and pension schemes. None of these approaches a sufficient solution. Even

¹⁸ Eastman, “Work Accidents and the Law,” p. 206.

where a workman has the will to save, his earnings do not permit an adequate accumulation, and if they cease at an early age the difficulty is increased. Industrial accident insurance, sold to workingmen on the weekly or monthly payment plan is bought at an excessive cost, and rarely returns benefits commensurate with loss of income. The relief associations of certain corporations afford substantial help, but they are far from giving adequate compensation and acceptance of their benefits usually involves conditions highly disadvantageous to the employee. Besides, they are not always safe or permanent.

Conclusion.—Having viewed the problem arising from industrial accidents and the failure of the present system of employers' liability as a method of solution, the next logical step is to seek a real remedy. Can this be found in an amendment of the present system of law, in the extension of present voluntary methods, or must a new scheme be devised and substituted for the old one? The history of legislative and judicial attempts to mold the common law into an adequate remedy and the testimony of experts representing all interests point to the undeniable fact that the system of employers' liability is basically wrong and that any attempt at a solution which does not remove this fundamentally unsound body of doctrine will be abortive. The same is true of the various voluntary substitutes which have been tried. Thirty-two of our states,¹⁴ appreciating these facts, have discarded the old common law doctrines and have substi-

¹⁴ Dec. 1, 1916.

tuted the more just and practical scheme of Workmen's Compensation.

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CHAPTER VI

THE THEORY OF WORKMEN'S COMPENSATION

The problem of compensating workmen for loss resulting from industrial accidents is essentially social and economic; social, because it is a direct concern of organized society; economic, because the loss must be measured in terms of economic welfare and because the compensation should be proportioned to the loss so measured. It should be remembered that the legal problem is secondary although vital; it consists in expressing, in the form of legislation, the judgment of society. Such legislation lays down rules governing the method of compensation and empowers public officials to administer and interpret the law, but it is only a vehicle for the accomplishment of socio-economic purposes.

It is evident that the methods which have been used in the past and which are still in use in sixteen states have become increasingly unsatisfactory. The operation of the system of employers' liability has resulted in injustice to all classes and, with the development of industrial conditions, the injustice has been aggravated. Commencing with the Industrial Revolution in the early nineteenth century the conditions under which industry has been carried on have gradually changed and a need for some new method of compen-

sation has been created. This need has been brought about by changes in industrial relations and by the introduction of machinery. Alongside the industrial development there has grown up a new body of social thought demanding recognition of changed conditions and seeking some means of providing adequate and just compensation for workmen who suffer loss through industrial accidents.

Changes in Industrial Relations.—The change from the domestic system of industry to the factory system involved a complete reorganization of the personal factors in industry and created those labor problems which are due to the differentiation of employer and employed. It is natural that the law of master and servant should have developed *pari passu* with the factory system and with the increasing opposition of interests of the two great social classes. The feeling of opposition and the disputes and injustice which have arisen from it were inherent in the growth of a new method of conducting business, one in which the principals were not properly orientated. The change in industrial relations evolved in three different aspects:

1. Under the domestic system all work was done on a personal basis, the workman was a member of his employer's family and the employer was no more than a highly developed workman. It was quite possible for any artisan, having passed through the stages of apprentice and journeyman, to become a master himself. Socially all were on the same level and personal and industrial interests were mutual. In case of injury and sickness the master was expected to care

for the members alike of his industrial and of his family group. But the factory system demanded capital, usually more than any one man was prepared to furnish, and the modern corporation was created to satisfy the demand. The corporation consists of a group of men who furnish capital and whose chief interest is in the financial side of a business, the actual carrying on of technical processes usually being entrusted to a hired manager who, in turn, in a large undertaking, delegates his functions to assistant managers, superintendents, and foremen. Hence the personal element in industrial relations largely disappears—even personal acquaintance between master and man vanishes. With the personal element gone the mutual interest which prompted aid and care is also lost. The employer now looks on his business as a means of acquiring wealth and power and the workman seeks to secure the largest possible return from a minimum amount of labor. The manager's remuneration is based on his efficiency in returning profits to the employer and his interests naturally lead him to conduct the business at the lowest possible cost. Aid in any appreciable amount has, until very recently at least, usually been denied to injured workmen and their families unless forced by a decree of the court. Compensation for industrial accidents has been regarded as an unwarranted expense totally opposed to the interests of the employer, who was not conscious of any direct personal relationship with his employee.

2. Industrial relations have become not only impersonal but highly complicated. Division of labor has necessitated the creation of many departments in an

THEORY OF WORKMEN'S COMPENSATION 71

industry, each employing a group of laborers and each contributing a share of the work necessary to manufacture a finished product. The heads of departments are responsible to the superintendent of the plant, the superintendent to the manager, and the manager to the board of directors, which represents the stockholders. Besides those concerned directly with the finished product of the industry, there are other groups which have a relation to the plant as a whole, repair men, construction gangs, and men concerned with motive power and its transmission.

Such conditions are responsible in a high degree for rendering unsatisfactory a system of compensation based on employers' liability. Employers' liability is governed by the principle of personal fault and in order to establish the existence of fault it is necessary to prove that an injury was caused wholly and directly by a particular person. The complicated relationships of the modern factory system have rendered this practically impossible, since the cause of almost every accident is a complex of the actions or neglect of a great number of persons, principals and subordinates.

3. In order to bring productive organization to its highest efficiency it has been found necessary to integrate and consolidate industry and to arrange the units of a large corporation so that each will contribute its utmost to the final product. In this process organization as such has come to mean more to the success of an undertaking than any other feature. The importance of organization which has carried with it definite rules and plans has meant the still further repression of the individual and has minimized his con-

tribution to the final result. The individual has been lost in the mass and the removal of a workman and substitution of another is now a less significant occurrence than formerly.

Change from Handicraft to Machinery.—The prime factor in the establishment of the present industrial system was the introduction of machinery and the substitution of mechanical power for manual labor. This has had two general effects which bear directly on the problem of industrial accidents:

1. The risk of accident has become greater; positively, through the introduction of dangerous machinery and increased speed of operation, and negatively, through the lowered skill of the workman and the employment of untrained immigrant labor. The improvement of methods in the steel industry and the progress of invention have constantly enlarged and complicated machines, and every enlargement and complication has increased the danger to the operator. Superior organizations, improvements in mechanical arts, and the production of finer grades of construction materials have increased the speed at which machines have been operated and have rendered less deliberate the movements of attendants. The invention of machines to perform delicate technical processes formerly accomplished only through hand work has made possible the employment of a lower grade of laborers, at once less able and less careful. The inability of immigrant laborers to understand the English language has been another factor in increasing the probability of accident occurrence.

2. The use of machinery to perform the greater

part of work once done by hand has contributed with the development of organization to the repression of the individual. The workman in many industries acts merely as a feeder and attendant to the machine, the mechanism of which now accomplishes the larger and more technical part of the work. Good machines are more important than skilled workmen and they have absorbed much of the attention formerly given to selecting and caring for individual employees.

The Growth of Cities.—The growth of cities with large manufacturing populations should be noted in connection with industrial accidents, for it has aggravated the severity of the problem. Wages in cities seldom exceed the minimum necessary to sustain life, and preclude effective help being given an injured workman by others of his class, a condition obtaining to a much less degree in the country. If a man is not totally disabled he is usually able to scrape together a bare living himself in the country districts, but this is not true of the congested areas of large cities.

New Social Ideas.—Changes in industrial conditions have made old theories and methods of accident compensation largely nugatory in actual practice; at the same time new social ideas have gained currency which have resulted in an almost complete reversal of attitude on the part of economists, legislators, and even employers:

- I. The generally accepted theory of the limitations on governmental action has undergone a considerable development. It is still agreed that the government should undertake only those tasks which can be more effectively accomplished by its agency and can not well

be left to individual initiative and responsibility. For long this was interpreted to cover only those affairs with which the government must concern itself in order to exist, such as the maintenance of order, the dispensation of justice and the carrying on of essential public works. Governmental interference with the affairs of the individual was not to extend beyond an unavoidable minimum. But now its function is of a more constructive nature, the actions of the individual are regulated to the end that greater social welfare may obtain and enterprises are undertaken by government which might be carried on, but less effectively, by individual initiative.

2. The development of the concept of liberty has been consonant with the change in governmental theory. The older and negative concept defined liberty as freedom from interference, the newer positive view recognizes that restraint and regulation may result in greater real freedom and wider privileges. In transportation, for example, regulation of common carriers has thoroughly substantiated this principle.

3. The elimination of waste through conservation of resources has its application to industrial accidents, for every workman lost through death or disability lowers the efficiency of the working force as a whole. Society has invested a certain portion of its resources in bringing men to the working age and social economy demands the fullest possible use of the productive capacity of each working unit.

4. In recent years there has been a considerably greater interest in the welfare of all classes from a humane point of view. The leisure class has to some

THEORY OF WORKMEN'S COMPENSATION 75

extent justified itself through the activities of some of its members who have become interested in social betterment and who have drawn attention to the suffering caused by industrial accidents. They have labored to improve industrial conditions by eliminating causes and securing remedial legislation.

5. The working class itself has done much toward accelerating investigation and improvement of conditions. It has organized and become educated both through its own efforts and through the aid of philanthropists and social scientists so that expressions of opinion on its part are something more than a forlorn cry for help. Education and organization carry with them a demand for recognition and a new kind of treatment, a demand for justice rather than mercy.

WORKMEN'S COMPENSATION

The application of modern social thought to the industrial accident problem and to the unsatisfactory conditions under the system of employers' liability resulted in the almost universal conviction that a radical change was necessary, that there must be nothing less than the elimination of the old system and the substitution of a basically new scheme. A complicating feature in the solution of the difficulty lay in the dual nature of the workman, who is both the means and the end of production. As a producer he is expected to make the greatest possible use of his productive capacity, as a consumer he is entitled to the greatest possible use of the product consistent with like enjoyment on the part of other members of society. The

balance must be struck in such a way as to reconcile these apparently inharmonious viewpoints.

The industrial world has quite generally agreed on the substitution of the principle of workmen's compensation for that of employers' liability and practically every European country and the majority of the states have adopted laws which, to a greater or less degree, apply the new principle.

Definition of Workmen's Compensation.—Workmen's Compensation is the indemnification of a workman or his dependents by an industry for any economic loss due to injuries suffered because of his connection with the particular industry.¹ The burden of cost of compensation is usually placed upon the employer as the representative of the industry.

Basis of Workmen's Compensation.—Workmen's Compensation is variously defended on grounds of expediency and justice. From either viewpoint a strong case may be established; when both are considered the argument is irresistible. The leading points urged in justification of the principle fall under four heads:

1. Industry is responsible for the occurrence of a large majority of industrial accidents;² therefore, industry should be compelled to bear any loss which may result.³ The provable majority is so large and the de-

¹ In actual practice, of course, the working class is not indemnified for the entire loss. Practical considerations make it necessary to modify the ideal in some degree.

² *V. supra*, pp. 10, 11.

³ The principal argument in support of workmen's compensation is based on the principle of fault but the old narrow interpretation recognizing only *personal* fault has been superseded.

THEORY OF WORKMEN'S COMPENSATION 77

termination of fault in the remaining cases is so difficult that expediency demands the extension of the principle to all accidents. Further, an industry which is not able to bear the loss occasioned by its accidents and which exists only by forcing others to bear the loss is parasitic and its expenses of production are not a true measure of cost.

2. Any workable scheme of compensation necessarily involves medical and surgical care of the injured and such care results in a net gain to individual industries and to society. Discarding of injured workmen is no more justifiable than a refusal to repair damaged machinery.

3. Society has accepted the idea that the needy should be cared for in all possible cases. Workmen's compensation is an application of this idea to a specific problem.⁴

4. The provision in workmen's compensation laws that an industry shall bear the burden of cost of its accidents does not mean that the burden will be ultimately borne by the employer as such. It does mean that the expense of producing any particular article will more accurately represent its real cost and that the selling price will be fixed accordingly. The loss from industrial accidents will be borne by the consumer of the commodity the production of which has

⁴It should be recognized that compensation according to need is not justified by the argument that the industry is responsible for economic loss. For example, industry is responsible for the cutting off of a workman's wages through accidental death but is not responsible in proportion to the size of the man's family. Compensation for dependents in proportion to their number can be defended only on grounds of expediency.

occasioned it. If the inclusion of this item in the cost of production makes necessary such an increase that the selling price becomes prohibitive, it is proved that the continued existence of the industry is justified only on grounds which would warrant governmental aid.

Conclusion.—Workmen's compensation is only one aspect of the gradual systematizing of human affairs. In private business cost accounting has succeeded in allocating many expenses formerly regarded as general and incapable of being charged to specific accounts. By this process the cost of conducting each separate department of a business becomes known. Likewise the capacity of each department to produce income is more accurately known and its worth is computed by a comparison of income and expense.

So organized society may be regarded as a huge business of which the various industries are departments. A comparison of the social cost of maintaining an industry with the return in terms of social welfare should be made to determine its net worth, bearing in mind that the apparent costs and returns in terms of money are not a final measure of either side of the account. The enactment and operation of workmen's compensation laws enable a more accurate estimate of the cost of carrying on industry and are an aid to a more equitable judgment of its net social worth.

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CHAPTER VII

HISTORICAL DEVELOPMENT OF WORKMEN'S COMPENSATION IN FOREIGN COUNTRIES

Workmen's compensation, while new to the United States, has been long established in European countries and in the British colonies. More recently it has been adopted in Japan and in certain South American countries and, at the end of 1916, forty-nine foreign governments had enacted compensation laws. These laws differ in scope and method but they are all based on the principle of providing indemnity for injury regardless of personal fault and are the result of the development of modern industry and ideas and of a complete dissatisfaction with the system of employers' liability.

The germs of the present compensation system existed over a century ago in the mining industries of Austria and Germany where the first attempts were made to provide for accident relief. In these countries as well as in others "liability laws" were enacted which made less difficult the securing of indemnity but which continued to recognize the fundamental idea of personal negligence as a cause of action. Such laws expressed a desire to correct existing unsatisfactory conditions combined with unwillingness to adopt an entirely new and revolutionary principle. Conviction

of the necessity of radical treatment becoming nearly universal, it has been expressed by the gradual adoption and extension of workmen's compensation. Each country passed through much the same stages of development before making the final step and a study of the growth of the new idea reveals a repetition of arguments pro and con, the same clash of interests, and at last the general agreement on the wisdom of shifting the burden of industrial accidents from the employee to the industry.

The following table shows the dates of enactment of compensation laws in foreign countries:¹

DATES OF ENACTMENT OF FOREIGN COMPENSATION LAWS

Country	Date of Enactment of original law	Country	Date of Enactment of original law
Germany	1884	Greece (mining, quar-	
Austria	1887	rying, metallurgy,	
Norway	1894	etc., only)	1901
Finland	1895	Sweden	1901
Great Britain	1897	Western Australia ..	1902
Denmark	1898	Luxemburg	1902
Italy	1898	British Columbia ...	1902
France	1898	Russia	1903
Spain	1900	Belgium	1903
New Zealand	1900	Cape of Good Hope.	1905
South Australia	1900	Queensland	1905
Netherlands	1901	Venezuela (mining only)	1906

¹ Based on a table in Bulletin No. 126 of the U. S. Bureau of Labor Statistics. The law enacted in 1914 by the Union of South Africa superseded the older laws of the Cape of Good Hope and of the Transvaal.

Country	Date of Enactment of original law	Country	Date of Enactment of original law
Mexico—Nuevo Leon	1906	Montenegro	1911
Hungary	1907	Japan	1911
Transvaal	1907	San Salvador	1911
Newfoundland	1908	Switzerland	1912
Alberta	1908	Roumania	1912
Bulgaria	1908	Portugal	1913
Quebec	1909	Ontario	1914
Manitoba	1910	Union of South Africa	1914
Nova Scotia	1910	Argentina	1915
Liechtenstein	1910	Colombia	1915
Servia	1910	Victoria	1915
New South Wales.	1910	Cuba	1916
Tasmania	1911	Chile	1916
Peru	1911		

Early laws were frequently restricted in scope and amendments have been added in most cases which bring a large proportion of the working population under their provisions. Many changes have also been required as a result of experience and in some cases complete revisions of the laws have been made.

There is a tendency in Europe, particularly in the more advanced countries, to look upon workmen's compensation as merely a part of a broad scheme of social insurance, including also sickness, invalidity, unemployment, and life insurance, old-age pensions, maternity benefits, etc. It is probable that, at some time in the future, each country will have a complete insurance code embodying provisions for these several risks and treating them as varying aspects of a single great problem rather than as isolated phenomena.

Germany and Great Britain have already gone far in this direction, the former with the Imperial Insurance Ordinance, and the latter with the National Insurance Act, both enacted in 1911.

A knowledge of the development of workmen's compensation in these two countries is especially helpful to the American student since the idea originated in Germany and has reached its highest development there, and since the institutions and industrial development of Great Britain most closely resemble our own. The following brief historical review is intended to serve as an introduction to the history and more detailed study of compensation in the United States.

GERMANY

Early Laws.—Like other countries, Germany passed through a long period of preparatory liability legislation before squarely adopting workmen's compensation. "Very early the Prussian laws recognized the obligation of the master to care for his servant during disability. This obligation was implied in the labor contract and the master could be compelled to pay for medical attention to his servant. The employer was also held responsible for accidents to servants in his employment due to his negligence, and was bound to care for the injured until restored. Similar laws protected the crews of vessels. In case of accident during the voyage, the master was liable for medical attendance, as well as for the expense of the voyage home. This applied even though the disability of the sailor were from sickness. In case of his death

while on a cruise, provision was made for the support of his dependents by the employer." ²

The first Prussian statute requiring the payment of indemnity for industrial accidents was that of November 3, 1838, which made railroad companies liable for accidents alike to employees and to passengers. The companies could escape liability only by proving that the accident had occurred through the negligence of the person injured or killed or through an "Act of God."

Laws were passed in 1845, 1849, and 1854 to encourage the formation of organizations of workingmen for the purpose of accident and sickness relief. The last of these laws required that employees in certain trades should join trade guilds to which employers were compelled to contribute one-half of the management cost.

Liability Act of 1871.—After the establishment of the German Empire in 1870 the problem of industrial accidents early engaged the attention of the government and the liability act of June 7, 1871, was passed. This act extended the railroad act of 1838 over the empire and in addition made the employer liable for accidents occurring in a mine, quarry, pit, or factory, if the injured workman or his survivors could prove negligence on the part of a vice-principal.

Experience under the liability act was by no means satisfactory. The burden of proof was still on the employee and the law did not affect accidents due to the negligence of a fellow-employee nor those due

² Frankel and Dawson, "Workingmen's Insurance in Europe," p. 91.

to the inherent risk of the employment. Employers' liability insurance became common, making still more difficult the recovery of damages, and frequent law suits did much to embitter the relations of employers and employees. An official investigation disclosed conditions similar to those which have already been described as incident to the operation of employers' liability in the United States.

Workmen's Compensation.—As a result of the growing dissatisfaction a movement for compulsory compensation gained rapid headway. The Socialists, under the leadership of Dr. Schaeffle, were first to urge the plan, which was supported by many of the economists and by most of the people. Bismarck, who had originally opposed the idea, finally adopted it with the purpose both of taking from the socialists some of their ammunition and of convincing the people of the beneficence of the State as it then existed.

The first bill was introduced in the Reichstag on March 8, 1881, and provided for compulsory insurance against economic loss from industrial accidents in mines, factories, etc. Insurance was to be carried in a federal insurance corporation or in mutual associations of employers, its cost to be defrayed by contributions of employers and employees and by a subsidy from the state. The Reichstag was in sympathy with the compulsory features of the bill but proposed to substitute separate insurance carriers in each kingdom for the single imperial corporation and refused a state subsidy. These changes were not satisfactory to the government and the bill was withdrawn.

Before another bill was introduced Emperor Wil-

liam sent his famous message to the Reichstag urging a comprehensive scheme of social insurance. As the first and as one of the most liberal of official pronouncements on the subject it deserves quotation at considerable length. The Emperor said in part:

We consider it Our Imperial duty to impress upon the Reichstag the necessity of furthering the welfare of the working people. We should review with increased satisfaction the manifold successes with which The Lord has blessed Our reign, could We carry with Us to the grave the consciousness of leaving Our country an additional and lasting assurance of internal peace, and the conviction that We have rendered the needy that assistance to which they are justly entitled. Our efforts in this direction are certain of the approval of all the Federate Governments, and We confidently rely on the support of the Reichstag, without distinction of parties. In order to realize these views, a Bill for the Insurance of Workmen against Industrial Accidents will first of all be laid before you; after which a supplementary measure will be submitted, providing for a general organization of industrial Sick Relief Insurance. Likewise, those who are disabled in consequence of Old Age or Invalidity possess a well-founded claim to more ample relief on the part of the State than they have hitherto enjoyed. To devise the fittest ways and means for making such provision, however difficult, is one of the highest obligations of every community, based on the moral principles of Christianity. A more intimate acquaintance with the actual capabilities of the people, and a mode of turning these to account in corporate associations, under the patronage and with the aid of the State, will, We trust,

develop a scheme to solve which the State alone would prove unequal.

Following this message of November 17, 1881, a new bill was brought forward by the government on May 8, 1882, which made provision for sickness as well as for accidents. The sickness insurance was to be paid for by the workmen with assistance from employers while the burden of cost of insurance against accidents was to be borne by the employers with a subsidy from the state. The first thirteen weeks of disability from accidents was to be compensated from the sickness insurance funds. Mutual associations of employers organized by trades were to administer the accident compensation and manage the accident funds. So much time was occupied in considering the proposals for sickness insurance that those for accident insurance were not reached during this session. The sickness insurance bill became law on June 15, 1883, going into effect December 1, 1884, and thus providing for the first thirteen weeks of disability from accidents.

A third bill providing workmen's compensation was introduced on March 6, 1884, which, on account of the general opposition of all parties in the Reichstag, made no provision for a state subsidy. Its other main features were the same as those of the second bill and it was passed on July 6, 1884, taking effect on October 1, 1885. The general principles embodied in this law are still the foundation of workmen's compensation in Germany and it may be regarded as the parent of all such legislation in other countries.

Many important industries were excluded from the operation of the first act but subsequent legislation has extended the scope of compensation so that now practically every industry is covered.³ All provisions for compensation have been brought together in a single code by the Imperial Insurance Ordinance of 1911.

Provisions of the Present Law.—In case of total inability to work resulting directly or indirectly from his occupation the injured workman receives payments from the date of the injury equal to sixty-six and two-thirds per cent of his former earnings, and a proportionate amount if the disability is partial.⁴ Compensation will not be paid if the injury was intentionally self-inflicted and may be refused altogether or partially if caused by the employee's criminal act.

Varying pensions, subject to a maximum of sixty per cent of wages, are paid to dependents; until death or remarriage in the case of a widow or widower; and to the age of fifteen in the case of children. Provision is likewise made for dependent parents, grandparents, and grandchildren.

These payments are made from the sickness insurance funds to which the workmen contribute two-thirds of the cost, for the first thirteen weeks, but after that time all payments are made by mutual trade associations maintained wholly by employers. The associations administer the law subject to appeal to the higher insurance officials of the empire.

³ For a list of industries for which compensation is provided see Dawson, "Social Insurance in Germany 1883-1911." Pp. 103-4.

⁴ Payments for total disability may be increased to one hundred per cent of earnings if a nurse is necessary.

GREAT BRITAIN

Employers' Liability.—In Great Britain ideas of individualism and freedom of contract have delayed the enactment of statutes dealing with employers' liability and workmen's compensation and have restricted the scope of such laws as have been enacted. Recovery of indemnity for injuries suffered in industry was, to 1880, governed by the common law of negligence, which went to such lengths in the protection of the employer that it was practically impossible for a workman to secure damages. The employer's defenses were given greater weight even than in the United States and it became possible for an employer to escape all liability if his business was conducted by a hired manager.

The Employers' Liability Act of 1880 was the first legislative protest against the sweeping favoritism of the common law. It placed the employee in the position of a stranger when certain kinds of negligence could be proved, modifying considerably the doctrines of common employment and of assumption of risk, but leaving untouched the doctrine of contributory negligence, with special provisions for railway employees. The amount of damages recoverable was, however, limited to three years' wages of a person in a similar grade and place of employment, and contracting out was still permitted.

This statute, though a step forward in the theory of the relation of employer and employee, was productive of little good. The practice of requiring workmen to sign a contract relieving the employer of lia-

bility became general and such actions as were brought were usually unsuccessful.

That act . . . cannot be said to have been successful. The proof of negligence has been found extremely difficult, and in a vast proportion of the cases of accident no negligence of the nature required by the act in fact existed, or at all events could be proved; and even if there were *prima facie* evidence of negligence, the risks of litigation were most serious both for employer and employed. . . . Regarded, therefore, as a means of obtaining compensation for injury by accident with a *reasonable degree of certainty*, the Employers' Liability Act of 1880 must be considered to have been a failure.⁵

Realizing the inadequate nature of the act of 1880, Mr. Asquith introduced a bill in Parliament in 1893 to modify still further the law of employers' liability. The bill provided for the abolition of the fellow-servant doctrine, for the repeal of any limitation on the amount of damages, and for the prohibition of contracting out. It left operative the doctrines of contributory negligence and of assumption of risk (except as modified in 1880). The bill was passed by the Commons but the House of Lords insisted on an amendment permitting contracting out under certain conditions.⁶ This amendment the Commons refused

⁵ *Report of the Departmental Committee on Workmen's Compensation*, 1904, p. II.

⁶ The scheme of compensation to be substituted by contract was to be approved by the Board of Trade and to provide for the compensation of all accidents, the employer contributing at least one-fourth of the cost.

to accept and the bill failed to pass, but its partial success is significant of the general trend of opinion.

Workmen's Compensation, the Law of 1897.—Finally, in 1897, the Conservatives introduced a bill which became the Workmen's Compensation Act of 1897 and which was the first law of the sort in an English-speaking country. Mr. Asquith, of the opposition, admitted the justice of the principle of compensation as opposed to the further modification of employers' liability which his earlier bill had proposed. It is interesting to contrast the statement made in support of this bill that "sound economic doctrine requires that the employer shall take all the ordinary and extraordinary risks involved in the carrying on of his industry" with the statement sixty years earlier in the case of *Priestly vs. Fowler* that "principles of justice and good sense require that a workman should take on himself all the ordinary risks of his employment."

The law was limited in its application to employment in, or about, a railway, factory, mine, quarry, engineering work, or building work exceeding thirty feet in height. The employer was required to pay compensation for all accidents except those due to the "serious and willful misconduct" of the employee and those which did not cause over two weeks' disability. The employee could recover under the law of negligence only if he could prove personal and willful neglect on the part of the employer.

Benefits for the injured and their dependents were provided as follows:

Compensation for death:

To those totally dependent, three years' wages, to be not less than £150 nor more than £300.

To those partially dependent, a reasonable payment according to the degree of their dependency, not to exceed three years' wages nor £300.

Reasonable medical and burial expenses, not to exceed £10, if there are no dependents.

Compensation for disability:

Fifty per cent of wages after the second week, not exceeding £1, for total disability with a reduced amount for partial disability.

It was required that payment of death benefits be made in lump sums which might be invested by an arbitrator to prevent squandering; and that incapacity benefits be paid weekly with privilege of commutation, subject to a similar investment provision, after six months.

Disputes arising regarding the payment of compensation must be settled by a committee representative of the parties in interest, by an arbitrator selected by the two parties, or, if no agreement could be reached on one of the first two methods, by the judge of the county court who should act as an arbitrator or might appoint someone to act in his place. Appeal could be made from a decision only on questions of law.

Contracting out was permitted by the new law provided the workman was not a pecuniary loser, and

provided the contract for other compensation was not a condition of hire. The Registrar of Friendly Societies was authorized to determine the adequacy of any proposed substitute for the compensation provided by law.

Later Acts.—The Act of 1897 was regarded as something of an experiment subject to extension and correction in the future. In 1900 its provisions were extended to cover agricultural employment and in 1903 a special committee was appointed to recommend amendments and to determine whether its operation should be further extended. This committee reported in 1904, and in 1906 an amending statute was passed which extended the principle to every employment, covering all workers earning £250 or less, with the exception of casual employees and out-workers.⁷ The act of 1906 is still in force and is, in essentials, the same as the act of 1897. Some important changes were made, however: certain trade diseases are now covered; the waiting period was reduced to one week and compensation is paid from the date of the accident if disability lasts over two weeks; the defense of "serious and willful misconduct" was removed where the accident resulted in death or in serious and permanent disablement; the privilege of compensation was extended to a greater number of dependent relatives; maximum benefits for minors were raised to full wages (later becoming one-half of the wages they would have earned as their wages increased); the restriction of compensation to accidents occurring "on,

⁷ The wage limitation does not apply to employees engaged wholly in manual labor.

in, or about" the employer's premises was removed; and more careful provision was made for the commutation of periodical payments.

Such have been developments in foreign countries and it is safe to say that nowhere is there any probability of a reaction against the compensation principle. Defects there are, but they are not fundamental. Many improvements must be made in method and in details and there will always be unsatisfactory features connected with the operation of any law, but workmen's compensation is thoroughly established and has become, especially in those countries where it was early adopted, a recognized essential in the governmental and industrial fabric.

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CHAPTER VIII

HISTORICAL DEVELOPMENT OF WORKMEN'S COMPENSATION IN THE UNITED STATES AND TERRITORIES

A complete history of workmen's compensation in the United States and its territories would require a separate account of its development in each of the jurisdictions where laws have been adopted and would involve a considerable amount of duplication as each state has passed through much the same legislative stages before abandoning the old liability doctrines. As the modification of the law of negligence has already been considered, the present chapter will be devoted to the progress of compensation legislation and will serve as an introduction to the analysis of existing laws contained in succeeding chapters.

The first evidence of interest in compensation in this country was the publication, in 1893, by the United States Bureau of Labor of a special report by Dr. John Graham Brooks on *Compulsory Insurance in Germany*. Since that time the Bureau has published numerous other studies dealing with this topic and in 1912 the Bureau of Labor Statistics inaugurated a *Workmen's Insurance and Compensation Series* of which ten numbers have already appeared. Many reports, valua-

ble and otherwise, of state investigating commissions, the proceedings of various conferences, and the publications of several societies interested in the study of compensation are also available. Since the enactment of compensation laws the literature has been greatly increased by the reports of administrative bodies, some of which are exceedingly valuable contributions. Several texts have been issued dealing with the legal side of the subject, as well as a few general treatises in book form. There is now, in fact, a plethora of publications where a few years ago there was practically nothing. There is much duplication and much that is worthless in all this, but as a measure of interest in the movement and of spread of the idea, the accumulation of articles, pamphlets, and books is significant.

Compensation Schemes of Private Corporations.—Long before compensation laws were considered in the United States private corporations, particularly railroads, were making some provision for employees' relief associations. These schemes varied in scope and effectiveness as well as in methods. In many the corporations gave substantial aid by paying the expenses of administration and by granting subsidies. Some were no more than arrangements for securing hospital treatment, others granted a regular scale of compensation for disability or death.

The greatest criticisms of these plans were that they were in all cases inadequate, making provision only for immediate needs, and that they were too often much more advantageous to the corporation than to the workman. They often furnished a safe repository

for funds and the help they gave was much better than anything which had before existed but the semi-compulsory nature of the membership requirements, the release from liability usually required as a condition of receiving benefits, and the payments required from workmen contrast them most unfavorably with modern compensation. They were a step forward and indicated a broadened attitude on the part of company officials who began to see the "practical" and humanitarian gains from a policy of accident prevention and compensation.

Workmen's Collective Insurance.—Another plan with some resemblance to workmen's compensation was *Workmen's Collective Insurance*, written under a group accident policy by the casualty companies. Premiums for this type of insurance and benefits granted were expressed as a percentage of wages, thus enabling the employer to secure for his employees the essential features of a modern compensation scheme. Premiums might be paid by the employer alone, by the workman alone, or by both. For a small increase in premium the policy might be extended to cover the entire twenty-four hours, the ordinary type covering only working hours.

The total volume of this sort of insurance has been small—it has not been featured by the insurance companies and many employers are unwilling to pay the apparently high premiums. It has no place, of course, in compensation states and is rapidly falling into disuse.

The Maryland Act of 1902.—The first legislation embodying in any degree the compensation principle

was the act providing for the coöperative accident insurance fund of Maryland, passed in 1902. The statute applied only to mining, quarrying, steam and street railway service, and to municipal operations in connection with sewers, excavations, or physical structures. The liability of the employer was extended to embrace the negligence of a fellow-servant, and only one-half damages were to be forfeited if contributory negligence could be proved. The employer, however, was exempted from all liability for accidents on the payment of a stated annual premium, varying with the industry and payable in monthly installments, into an insurance fund to be administered by the insurance commissioner, who was to receive one per cent of the receipts in payment for the extra work involved.¹ The employer was permitted, after giving notice to his employees, to deduct one-half of these premiums from their wages. Exemption might also be secured by showing to the satisfaction of the insurance commissioner that there was already in operation a plan more advantageous to the employees than that proposed by the act.

The benefits granted by the statute were meager—\$1,000 was to be paid from the fund to the heirs or personal representatives of any employee fatally injured in the course of his employment. Death must occur within one year and the injury must be due to the employment. There was no provision for non-fa-

¹ The annual premiums were as follows: for each employee of a steam railroad, \$3.00; of a mine or quarry, \$1.80; of a street railway, \$0.60. The insurance commissioner was authorized to set the premiums payable by municipalities.

tal injuries. The insurance commissioner was given plenary power of administration with no right of appeal to the courts.

The law remained in force a little less than two years, being declared unconstitutional by the courts on the grounds that it vested judicial powers in the insurance commissioner, deprived workmen of a right hitherto enforceable in the courts, and denied the right of trial by jury. Its operations were insignificant, only nine companies contributing to the fund, of which the receipts were \$5,313.90. Of this, \$5,000 was paid out in death claims and \$300 for expenses.

The Massachusetts Act of 1908.—No further laws were passed until 1908, although a Massachusetts committee had recommended a law modeled after the English act in 1903, and an Illinois commission had suggested a voluntary act in 1905. The Massachusetts act of 1908 provided no definite plan of compensation but authorized the establishment of private plans in the following terms:

Any employer of labor may submit to the State Board of Conciliation and Arbitration a plan of compensation for employees in his employ, providing for payments to said employees in the event of injury in the course of their employment, based upon a certain percentage of the average earnings of such employees; and without reference to legal liability under the common law or the employers' liability act. After examination of such plan of compensation, and a public hearing thereon after public notice thereof, the board of conciliation and arbitration may, if it considers the same fair and just to the

employees, give its approval thereof by certificate to be attached to such plan.²

After obtaining official approval the employer was permitted to enter into a contract with his employee by which the compensation scheme was to be accepted in lieu of all legal liability for accidental injuries. The contract could not be made a condition of employment nor was it to be binding for more than one year from its date. The law is purely of historical interest, as it was a dead letter from the start.

The Federal Act of 1908.—The Federal act of 1908, though notoriously inadequate, was the first real compensation law to be enacted in the United States³ and continued in force until it was superseded by the act of 1916.

Later Acts.—On March 4, 1909, Montana adopted a compulsory compensation law to take effect on October 1, 1910, and applying only to the coal mining industry. A coöperative insurance fund was established to be supported by contributions from employers and workmen. The law was declared unconstitutional since the workman could still sue under the common law, a double liability being thereby imposed on the employer. A somewhat similar statute was adopted in Maryland, in 1910, applying to miners in two counties, but this was repealed in 1914. The only

² Laws of Mass., 1908, Chap. 489, § 1.

³ The first compensation law to take effect within the jurisdiction of the United States was that enacted by the U. S. Philippine Commission in 1906 which provided for the continuation of wages or salary for not more than 90 days of disability resulting from an injury incurred while on duty.

other laws not now in effect are the compulsory New York law of 1910, the elective Kentucky law of 1914, both declared unconstitutional, and the impractical Maryland act of 1912 which was superseded by the act of 1914.

Beginning with the year 1909, interest in compensation has grown rapidly. Many investigating commissions have been appointed and the greater number of our present laws are a result of their labors combined with the recommendations of various private organizations. Barring the elective New York statute of 1910,⁴ which has been a dead letter, the state compensation law which has been longest in force, is that of New Jersey, which went into effect on July 4, 1911. Two other laws, those of Kansas and Washington, were passed at an earlier date (March 14, 1911) than the New Jersey statute, but they did not become effective until the following January first and October first, respectively. Other laws passed in 1911 were those of Massachusetts, New Hampshire, Ohio and Wisconsin.

Since 1911 the compensation idea has spread rapidly until, at the present writing, the United States, thirty-two states, and two territories have adopted this principle and several others are considering it. In every state prominent industrially there is a compensation law in force. The following table indicates the growth of such legislation in the United States and territories.

⁴ In the remainder of this volume the elective New York law will not be considered, as it has no effect. Any reference to the New York act will apply to the compulsory statute enacted in 1913.

YEARS OF ENACTMENT AND TAKING EFFECT OF WORKMEN'S COMPENSATION LAWS
NOW IN FORCE IN THE UNITED STATES AND TERRITORIES^a

Year	1911	1912	1913	1914	1915	1916
Laws enacted.....	7	3	11	2	10	2
Laws taking effect.....	3	7	6	7	8	4
Total number of laws in force.....	3	10	16	23	31	34
States and Territories in which enacted.....	*Kan. *Mass. *N. H. N. J. *Ohio Wash. Wisc.	Ariz. Mich. R. I.	*Cal. *Conn. Ill. Ia. Minn. *Neb. Nev. *N. Y. *Ore. Tex. W. Va.	La. Md.	Colo. Ind. *Me. Mont. Okla. *Penna. Vt. Wyo. Alaska Hawaii	Ky. U. S.

Along with this development in legislation has gone a corresponding development in public opinion. A few years ago the proponents of compensation were limited to a few economists and government officials, the great majority of the people knowing nothing of the movement, and most manufacturers and labor organizations actively opposing it. Now it is difficult to find a person with any knowledge of the subject who will offer objection to the general principle. Criticisms are directed at details and methods, but all classes are convinced that compensation is inevitable and desirable.

The foregoing presents in brief the development of the institution of workmen's compensation which has now become a definitely accepted part of our social structure and which has paved the way for the discussion and development of social insurance along other lines. In the three following chapters the statutes now in force are analyzed with a view to explaining the essential features and variations of compensation laws

^a An asterisk indicates that the law took effect in the following year.

as adopted in this country, and to suggesting certain improvements.*

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- RUBINOW, I. M. "Social Insurance," Holt, New York (1913). Chaps. X and XI.
- Workmen's Insurance and Benefit Funds in the United States.* 23d Annual Report of the Commissioner of Labor, Washington (1909). Pp. 271-662, 749-793.
- Workmen's Compensation Laws of the United States and Foreign Countries, 1916.* Bulletin of the U. S. Bureau of Labor Statistics, No. 203, Washington (1916).

* Since this chapter went to the printer the enactment of compensation laws by five states has been reported, as follows: Idaho, Delaware, New Mexico, South Dakota, and Utah.

CHAPTER IX

WORKMEN'S COMPENSATION LEGISLATION IN THE UNITED STATES AND TERRITORIES

Among the thirty-three workmen's compensation acts in force in the United States there is wide diversity of expression of the compensation idea. These laws differ in extent of application, in amount of compensation, in method of administration, in insurance requirements, and in various other elements involved in the application of the principle of compensation. They are all based, however, on the unifying purpose of compensating the workman for economic loss from industrial accidents without requiring proof of fault on the part of the employer or of freedom from fault on the part of the employee. Their diversity is due to differences in opinion on the proper methods of securing justice to the workman, to varying degrees of skill and diligence in drafting laws, and to considerations of expediency in presenting to legislatures bills which do not arouse effective opposition nor encounter constitutional objections. The demand for compensation legislation has often been answered by the passage of acts which have been drawn up without adequate investigation of the subject and by incompetent or partisan officials. So many considerations foreign to justice and scientific accuracy enter into the passage of legislative measures that we can not be said to

have an ideal compensation statute on the books of any of our states, although many of them are praiseworthy as first steps in this form of legislation.

The defects of our compensation legislation do not result alone from legislative expediency and lack of careful investigation. We are as yet young in this field and experience will point the way to many changes, the necessity of which could not be foreseen. Already many features which experience has proved necessary or diminished opposition made possible have been incorporated by amendment of existing statutes. The tendency of amendments is toward liberalization and administrative reform, and toward the correction of those defects which have become evident in practical operation.¹

In the following pages the provisions of existing laws are analyzed with a view to showing the prevailing practice in the essential features of a compensation statute. It is further attempted to indicate the relative desirability of various provisions, to explain the motives for their enactment, and to suggest possibilities of improvement.

Election of Compensation.—Twenty-five states and one territory² have adopted so-called elective laws which provide for optional compensation. Neither employers nor employees are forced to accept the pro-

¹One of the problems of amendment consists in revising or eliminating provisions inserted in slavish imitation of unsuitable models.

²Ariz., Colo., Conn., Ill., Ind., Ia., Kan., Ky., La., Me., Mass., Mich., Minn., Mont., Neb., Nev., N. H., N. J., Ore., Penna., R. I., Tex., Vt., W. Va., Wis., Alaska.

visions of the act and either may elect to remain under the system of employer's liability. This privilege of election is of little practical significance, however, for the alternative to acceptance is highly disadvantageous to both classes. The employer who refuses to elect the act is, in practically all cases, made liable for damages under the common law with the defenses of assumption of risk, common employment, and contributory negligence removed. If the employee rejects the act the employer is permitted to make use of these defenses.³ Further, in practically every act, election is automatic—employers and workmen are presumed to have elected compensation unless they serve notice to the contrary. These provisions achieve the purpose for which they are inserted, that of bringing the majority of the laboring population under the compensation act. Those who do not take the trouble to consider the question are reached by the automatic application of the law while those who investigate usually prefer to accept rather than take the risks of a suit at law under the new code of liability. Rejection is confined to a small group of reactionaries and non-hazardous trades.⁴

There is little need of advising the acceptance of a

³In the Pennsylvania Act the defenses are removed even though the employee rejects the law. The defense of contributory negligence is not abrogated if the accident is caused by the employee's intoxication, or by "reckless indifference to danger."

⁴In Texas and West Virginia the compensation act is elective as to employers and compulsory on employees if the employer has elected it. In Arizona the act is compulsory on employers but the employee may elect to sue under the common law after the injury has occurred.

properly drawn compensation act at this time and it should be pointed out that election of compensation on the part of both employers and employees is proceeding to a much greater extent than formerly from a new concept of social values and from the promptings of "enlightened self-interest." Where formerly it was necessary to make a law elective for conciliatory reasons, its necessity now rests on grounds of constitutional law. It is to be hoped that even this necessity will disappear.

In seven states and one territory⁵ workmen's compensation has been made compulsory. Four of these extend compulsion to most employments subject to the act but provide that in certain employments the act shall be elective; and in Ohio, while compensation is compulsory, as a penalty on the employer for failing to comply with certain provisions, the injured employee is entitled to bring suit at common law with the three defenses removed or have compensation awarded under the terms of the act, as he may choose. Nearly one-half of the elective acts are compulsory as to public bodies.

There is little to be said in favor of an elective law on grounds of principle. There is no good reason for leaving to individual discretion the acceptance of a measure of social justice so universally approved as workmen's compensation—compulsion should be applied wherever possible. It is true that an elective

⁵ Cal., Md., N. Y., O., Okla., Wash., Wyo., Hawaii. The federal act is also compulsory. Map No. 1, p. 107, shows the states which have adopted compensation laws and indicates the nature of each, whether elective or compulsory.

law is better than none at all and that in some jurisdictions an elective clause is necessary if the law is not to be declared unconstitutional, but the necessity of inserting a clause which is no more than a trick to evade the constitutional question is subversive of good legislative practice and furnishes an argument in favor of constitutional amendment.

Employments Covered.—No compensation law in the United States covers all employments, except the federal act, which covers all civil employees of the United States government. Express exception is made of certain classes, and enumeration of those to which the law applies is included in its provisions. Some statutes cover all employments with the exception of casual labor or labor not in the "usual course of business" of the employer. About one-half of the acts cover all employments except domestic service, agricultural labor, and casual labor. Eleven states restrict the operation of the law to employers having a certain number of workmen⁶—others specifically except outworkers, while several restrict the operation of the act to employees who receive earnings below a specified maximum. Employees of railroads engaged in interstate commerce are usually excluded from the operation of the act, and in some cases employees in important industries are excluded, evidently through the pressure of important business interests.⁷ Enumerations of specific employments or of classes of employ-

⁶ In eight of these the number is set at five; in one, at ten; in one, at four, and in one, at two.

⁷ E. g., the exception of cotton ginning in Texas and the exception of distilleries in the first Kentucky law.

ments to which the law shall apply are contained in the statutes of eleven states, varying from the limited classification of New Hampshire to the extensive and detailed list of New York. In all cases the enumerations are based on the idea that the compensation law should cover only "hazardous" or "extra-hazardous" employments.

A perfect scheme of compensation should cover all employments without exception. There are two sufficient reasons for making exceptions; that with the prevailing state of public or legislative opinion, a bill covering all employments would fail of enactment, and that the social cost of including a given employment is not justified by the social gain to be derived. The operation of the first reason depends on local conditions and is justified only to secure the establishment of the principle. The second reason is applicable to a very limited class—to quote the *Standards for Workmen's Compensation Laws*:⁸

The only exception which should be made is of casual employees in the service of employers who have only such employees and who, therefore, cannot fairly be required to carry compensation insurance policies. Such policies, on payment of a small additional premium, are now drawn so as to embrace casual as well as regular employees. No serious burden is, therefore, entailed on employers, even of domestic servants, in making them liable to pay compensation even to casual employees.

The usual exceptions are plainly the result of attempts to relieve small employers of liability and to

⁸ Published by the American Association for Labor Legislation.

exclude relatively non-hazardous occupations. The individual who constitutes his employer's entire labor force has quite as valid a claim to compensation for injury as has a workman who is only one unit in a large organization. Liability for such compensation is not a serious matter for the small employer since he may take out an insurance policy for a small premium. The attempt is frequently made to justify the exclusion of agricultural laborers and domestic servants on the ground that these occupations are non-hazardous. Such statistics as are available discredit this argument but even were it true it should have little weight since insurance companies grant a comparatively low rate on non-hazardous employments.

While it is true that practical reasons justify the exclusion of casual laborers in the service of employers who have no other employees, it would seem that some provision should be made for them, possibly from the public treasury.

Injuries Covered.—But two states ⁹ have laws which apply to all injuries occurring “in the course of the employment.” One state ¹⁰ includes all accidental injuries arising “out of and in the course of the employment.” In all others exceptions are made which reflect the old “personal fault” concept and which aim to regulate the conduct of an employee by denying compensation to him and to his dependents under certain conditions. The most frequent exceptions are of injuries arising from willful misconduct, serious and

⁹ Texas and Montana. The latter has certain special restrictions regarding hernia, and specifically excepts disease.

¹⁰ Illinois.

willful misconduct, intoxication, and willful self-infliction. In several states death must occur within a certain length of time after injury in order to be made the basis of compensation to dependents, the period varying from six months to two years.

The exceptions noted above have as their motive relief of the employer from liability for injuries which are without question due to the action of the employee as an individual. The terms "serious and willful misconduct" and "willful misconduct" were borrowed from the English act and have little to commend them. They are exceedingly difficult of interpretation and merely preserve certain objectionable features of the old liability system. "Intoxication," likewise, cannot be easily defined and it is probable that, as a matter of policy, the employer should be made liable for injuries arising from this cause in order to impress him with the advisability of making sobriety a condition of employment. "Willful self-infliction" may be justified as a cause for denial of compensation, although actual cases of such action would probably be very unusual, even in the event that payment could be secured. It would seem that even here compensation should not be denied to dependents since the economic need is equally pressing and since there is no justification for imposing a penalty on them for another's misconduct. Compensation for all accidents arising "in the course of employment" has the cardinal merit of simplicity, and does away almost entirely with the necessity of official interpretation.

Massachusetts and California include occupational diseases within the scope of their compensation laws.

A number of laws specifically except this form of injury, while the majority make no mention of occupational diseases as such. It has usually been held that the terms "accidental injury" and "injury by accident" which are included in most laws do not embrace occupational diseases. It is obvious that in practically every state there was no intention of covering such injuries, but disease which is the natural and direct result of a compensable injury is included in all cases.

Workmen should be compensated for losses from disease arising out of the conditions under which industry is conducted. While industrial diseases are less spectacular than accidents and are less likely to attack without warning, responsibility for their occurrence is attributable to the industry and it should bear the cost of furnishing adequate compensation. The arguments advanced in favor of accident compensation apply even more forcibly to industrial diseases since the latter are less susceptible of control by the individual workman.

The Beneficiaries of Compensation.—In cases of disability compensation is paid to the disabled workman, while in case of death payment is made to surviving dependents if there are any; if not, some provision is usually made for funeral expenses. In only one state, Oklahoma, is there no provision for dependents in case of death. The following quotation from the California act is typical of definitions of dependents:

Sec. 19. (a) The following shall be conclusively presumed to be wholly dependent for support upon a deceased employee:

- (1) A wife upon a husband with whom she was living at the time of his death, or for whose support such husband was legally liable at the time of his death.
- (2) A husband upon a wife upon whose earnings he is partially or wholly dependent at the time of her death.
- (3) A child or children under the age of eighteen years (or over said ages, but physically or mentally incapacitated from earning) upon the parent with whom he or they are living at the time of the death of such parent or for whose maintenance such parent was legally liable at the time of his death, there being no surviving dependent parent.

(b) In all other cases, questions of entire or partial dependency and questions as to who constitute dependents and the extent of their dependency shall be determined in accordance with the fact, as the fact may be at the time of the death of the employee.

(c) No person shall be considered a dependent of any deceased employee unless a member of the family of such employee or unless such person bear to such employee the relation of husband or wife, child, adopted child or stepchild, father or mother, father-in-law or mother-in-law, grandfather or grandmother, brother or sister, uncle or aunt, brother-in-law or sister-in-law, nephew or niece.

Illegitimate and posthumous children are often included by express statement.

Non-resident alien dependents are variously treated; many acts make no mention of them, some exclude them from the list of beneficiaries, while others expressly include them, but often at a reduced rate.

In some states payment will be made only to certain of the decedent's immediate relatives. New Hampshire even goes so far as to deny payment to dependents not resident in the state at the time of the workman's death. As a matter of justice aliens should receive payments on the same basis as other dependents.

Waiting Period.—In the majority of states payment of compensation begins only after a two weeks duration of disability. Oregon alone requires payment unqualifiedly from date of injury, while Illinois and Minnesota provide for such payment in the case of permanent injuries.¹¹ In six states payment dates back to the time of the injury if disability continues for a certain length of time.¹² This waiting period refers only to the actual payment of benefits—medical and surgical aid must be supplied immediately on the occurrence of an injury. Its purpose is to exclude unimportant injuries and to prevent malingery. In a multitude of cases where disability lasts for a few hours or days the cost of administration of compensation benefits would be disproportionately large in comparison with benefits and would result in a net social loss. This fact makes necessary the exclusion of a large class of accidents which make a considerable showing in the aggregate but which are of little importance in the individual case.

One of the dangers of granting compensation arises

¹¹ Certain acts provide waiting periods of three, six, seven, or ten days and one sets the time at three weeks. In Washington no payment is made unless the time lost is equivalent to a loss of 5% of the monthly wages.

¹² Two to eight weeks.

from the inducement given the workman to feign injury or to allege a longer period of incapacity from actual injury than is justified. The waiting period furnishes an opportunity for examination and for detection of this sort of malingery and should be of sufficient length to counteract any tendency in this direction. If it is too short it will tempt the workman to prolong his period of idleness in order to secure payment of benefits; if too long, an undue burden of loss will be imposed upon him. The provision that compensation shall date back to the injury if disability endures for a considerable length of time is undoubtedly wise, but a waiting period of two weeks with compensation from date of injury if incapacity for work lasts over two weeks is too great a temptation to malinger. Prolongation of disability for one or two days would entitle the workman to the full two weeks' compensation in many cases. The length of the waiting period should strike an equitable mean between conflicting considerations and should depend to some extent on local conditions of industry and administration. In no case should it be over two weeks.

CHAPTER X

WORKMEN'S COMPENSATION LEGISLATION IN THE UNITED STATES AND TERRITORIES (*Continued*)

THE SCHEDULE OF COMPENSATION

Since workmen's compensation laws are designed to provide benefits for those suffering economic loss through injury, a most important section of a compensation act is that setting forth the amount of such benefits. To be just, they should be proportioned to the losses which they indemnify. The first problem is to find a suitable measure of the loss which will serve as a basis for the computation of payments. The most practicable measure of economic loss is the wages received by the injured workman at the time of the injury and this has been adopted by all except three states. Compensation payments are expressed in the form of a percentage of wages, usually between definite limits. This percentage must not be set too low lest the benefits prove insufficient, nor should it be set too high lest they offer an incentive to malingery.

Provision must likewise be made for medical and surgical aid and for the payment of benefits in periodical installments or lump sums as may be deemed wise.

Classification of Industrial Accidents.—For pur-

poses of compensation industrial accidents are divided into two general classes, *non-fatal* and *fatal*. In non-fatal cases all payments are made to the injured person and the only question involved concerns their amount. Fatal cases raise questions both of amount and of distribution. If a certain fixed percentage is to be paid to dependents, regardless of their number and relationship, it must be determined how that amount is to be distributed among them, whether they are to share equally or according to relationship and degree of dependency. This may be accomplished by the insertion of provisions in the law or by authorizing the administrative body to adjust such matters. If it is considered best to award a definite percentage to each of the dependents, according to relationship or dependency, these percentages must find expression in the law. Further, it is necessary to provide for payments to non-resident aliens if it is desired to treat them differently from residents.

While the complications in fatal cases arise from the nature of the beneficiaries, in non-fatal cases they are due to the varying nature of injuries, which are classified as total or partial disabilities. *Total disability* is that disability which renders it impossible for a workman to perform any work whatsoever, while *partial disability* exists when he is able to continue work but with a reduced earning capacity. Either total or partial disability may be *permanent* or *temporary*; the former continuing for life, the latter for a shorter period. Another class usually inserted embraces *specific injuries*, such as the loss of an eye, hand, foot, etc.

Each of these groups may in turn be divided into *compensable* and *non-compensable* cases; or, specifically, those cases in which compensation is payable under the law and those cases in which it is not so payable.

Total Disability Benefits.—For *temporary total disability* a sum equal to fifty per cent of the wages is granted in twenty-one states and one territory, the usual basis being the average weekly wage. Other acts provide for larger percentages as follows: fifty-five per cent in Indiana, sixty per cent in Texas and Hawaii, sixty-five per cent in California, Wisconsin,¹ and Kentucky, and sixty-six and two-thirds per cent in Massachusetts, New York, and Ohio and under the federal act. Three states, Oregon, Washington, and Wyoming require the payment of periodical amounts, fixed with reference to conjugal state and number of children; in the first two of which the payment for the first six months is computed by increasing the permanent total disability payments² by fifty per cent with a maximum limit of sixty per cent of wages. In Wyoming the following schedule is in force: an unmarried workman receives fifteen dollars per month, a married workman living with his wife, twenty dollars, plus five dollars for each child under sixteen years of age, the total not to exceed thirty-five dollars. In four states³ compensation for temporary total disability continues as long as disability lasts, though in three the rate is reduced after a certain period has

¹ In Wisconsin 100% is allowed if a nurse is necessary.

² *V.* p. 119.

³ Colorado, Nebraska, Oregon, and Washington.

elapsed. In Colorado, as well as under the federal act, the payments are continued at the original rate for the full duration of disability. All other acts set a definite maximum limit on the aggregate amount of compensation, on the period of time during which it is to be paid,⁴ or on both. Limits are also provided for weekly or monthly payments in all but two states; the usual minimum being five dollars, and the usual maximum ten dollars, per week. Full wages are paid in several states if the workman's earnings are below the required minimum.

All acts which provide for percentage payments for temporary total disability require the same percentages to be paid for permanent total disability. In ten states benefits continue throughout life for disability of this kind but in two of these at a special rate,⁵ while four change the rate after a certain period.⁶ The re-

⁴ Limits of amount vary from \$1000 to \$5000; and of time, from 26 to 500 weeks. Where both limits are used that one becomes operative which is first reached.

⁵ Oregon and Washington, where the following schedules are in force, payments being on a monthly basis:—

	Oregon	Washington
Unmarried	\$30.00	\$20.00
Having able-bodied husband.....	30.00	15.00
Having wife or invalid husband.....	35.00	25.00
Widow or widower.....	30.00	20.00

For the last three classes payments are increased by six dollars in Oregon and by five dollars in Washington for each child under sixteen, such additional amount to be discontinued when the child reaches that age. Total payments are not to exceed fifty dollars in the former state nor thirty-five dollars in the latter.

⁶ California changes the rate from 65 per cent to 40 per cent after 240 weeks; Illinois, from 50 per cent of wages to an annual pension of 8 per cent of total previous payments (mini-

maintaining four⁷ pay the same percentage throughout life.

Much the same limits to weekly and aggregate payments are applied here as in temporary cases except that the aggregate limits are raised in some acts. Wyoming and Alaska provide for lump sum payments varying from one thousand to three thousand dollars in the former, and from three thousand six hundred to six thousand in the latter.

Partial Disability Benefits.—Benefits for *temporary partial disability* are generally computed by the application of the percentage used in cases of total disability to the loss in earning power attributable to a compensable injury. This method is used in fact or in principle wherever benefits for disability of this character are granted.⁸

Permanent partial disability (other than certain specific injuries) entitles the workman in most states to the same benefits which he secures for temporary partial disability. There are several exceptions, however; in California, West Virginia, and New York and under the federal act payments are continued for life, and the acts of New Jersey, Washington, and Wyoming, which do not provide for the latter form of disability, make provision for permanent partial cases,

imum \$10 monthly) after the original payments equal four times average annual earnings or \$3,500; Montana, from 50 per cent of wages to \$5 per week after 400 weeks; Nebraska, from 50 per cent to 40 per cent after 300 weeks.

⁷ Colorado, New York, Ohio, and West Virginia. The federal act also provides for payments throughout life.

⁸ New Jersey, Washington, and Wyoming make no provision for temporary partial disability.

in the last two states through the requirement of lump sum payments.

Limits of various kinds and amounts are imposed on partial disability benefits of the same general character as those on total disability benefits, except that the minimum weekly amount is omitted in most acts.

Specific Permanent Injury Schedules.—Following the example of New Jersey, nearly every state has adopted the principle of granting benefits for certain specified injuries on the basis of a separate schedule, enumerating the injuries and usually requiring the payment of compensation for a definite number of weeks for each injury. The following quotation from the Pennsylvania act is typical of schedules of this sort:

(c) For all disability resulting from permanent injuries of the following classes, the compensation shall be exclusively as follows:

For the loss of a hand, fifty per centum of wages during one hundred and seventy-five weeks.

For the loss of an arm, fifty per centum of wages during two hundred and fifteen weeks.

For the loss of a foot, fifty per centum of wages during one hundred and fifty weeks.

For the loss of a leg, fifty per centum of wages during two hundred and fifteen weeks.

For the loss of an eye, fifty per centum of wages during one hundred and twenty-five weeks.

For the loss of any two or more of such members, not constituting total disability, fifty per centum of wages during the aggregate of the periods specified for each.

Unless the Board shall otherwise determine, the loss of both hands or both arms, or both feet, or both legs, or

both eyes, shall constitute total disability, to be compensated according to the provisions of clause (a).⁹

Amputation between the elbow and the wrist shall be considered as the equivalent of the loss of a hand, and amputation between the knee and ankle shall be considered as the equivalent of the loss of a foot. Amputation at or above the elbow shall be considered as the loss of an arm, and amputation at or above the knee shall be considered as the loss of a leg. Permanent loss of the use of a hand, arm, foot, leg, or eye shall be considered as the equivalent of the loss of such hand, arm, foot, leg, or eye.

This compensation shall not be more than ten dollars per week, nor less than five dollars per week: Provided, That, if at the time of injury the employee receives wages of less than five dollars per week, then he shall receive the full amount of such wages per week as compensation.¹⁰

Compensation under these schedules is in lieu of all other compensation except in a few states where it is treated as an additional payment.

In a few states no such schedule is inserted in the act and workmen suffering injuries of this sort are awarded compensation on the basis of loss of earning power. In California they are covered by the provisions for permanent disability, which fix the number of weeks for which compensation payments will be made according to the percentage of disability.

The following table gives examples of these provisions of the California act:—

⁹ A clause providing compensation for total disability.

¹⁰ Pennsylvania Workmen's Compensation Act, § 306 (c).

Percentage of Disability	Percentage of Av. Wkly. Wages Paid	Period of Compensation
I	65	4 weeks
60	65	240 "
70	{ 65 10	240 " for life
100	{ 65 40	240 weeks for life

A further clause provides that "In determining the percentages of permanent disability, account shall be taken of the nature of the physical injury or disfigurement, the occupation of the injured employee and his age at the time of such injury."¹¹ The actual determination of the percentage of disability is a function of the Industrial Accident Commission which has prepared a *Schedule for Rating Permanent Disabilities* with the aid of which the percentage of disability may be quickly computed for various ages, occupations and injuries.

*Death Benefits.*¹²—If a workman dies as a result of a compensable injury those dependent upon him for support are entitled to indemnity. Practically every act makes a distinction between total and partial dependents, the latter usually receiving a smaller payment than the former, and receiving such payment only when there are no total dependents. The acts of fifteen states which provide for the payment of a

¹¹ Chap. 176, Laws of 1913, § 15.

¹² Oklahoma makes no provision for death benefits.

percentage of wages in case of total disability grant the same percentage to total dependents, regardless of number or relationship. Eight others,¹³ one territory, and the United States, provide varying percentages adjusted according to number and relationship of dependents, while three¹⁴ provide flat rates, similarly adjusted.¹⁵ Of the six acts requiring the payment of lump sums at death, only two, those of Wyoming and Alaska, make such an adjustment.¹⁶ A recently enacted law furnishes an excellent example of payments adjusted both to number and relationship:

Section 307. In case of death, compensation shall be computed on the following basis, and distributed to the following persons:—

1. To the child or children, if there be no widow nor widower entitled to compensation, twenty-five per centum of wages of deceased, with ten per centum additional for each child in excess of two, with a maximum of sixty per centum, to be paid to their guardian.

2. To the widow or widower, if there be no children, forty per centum of wages.

3. To the widow or widower, if there be one child, forty-five per centum of wages.

4. To the widow or widower, if there be two children, fifty per centum of wages.

¹³ La., Minn., Mont., Nev., N. J., N. Y., Penna., Vt., Hawaii.

¹⁴ Ore., Wash., W. Va.

¹⁵ Payments in Oregon vary from \$30 to \$50 per month; in Washington and West Virginia, from \$20 to \$35.

¹⁶ Lump sums are paid to total dependents upon death as follows:—in Arizona, 2400 times one-half daily wages; in Illinois 4 times average annual earnings; in Kansas, 3 times average annual earnings; in New Hampshire 150 times average weekly earnings; in Wyoming, \$500 to \$2000.

5. To the widow or widower, if there be three children, fifty-five per centum of wages.

6. To the widow or widower, if there be four or more children, sixty per centum of wages.

7. If there be neither widow, widower, nor children, then to the father and mother, or the survivor of them, if dependent to any extent upon the employee, for support at the time of his death, twenty per centum of wages.

8. If there be neither widow, widower, children, nor dependent parent, then to the brothers and sisters, if actually dependent to any extent upon the decedent for support at the time of his death, fifteen per centum of wages for one brother or sister, and five per centum additional for each additional brother or sister, with a maximum of twenty-five per centum; such compensation to be paid to their guardian.¹⁷

The acts of four states, New York, Oregon, Washington, and West Virginia, and of the United States, provide for the continuance of benefits to a widow or dependent widower until death or remarriage, and the first three of these states extend the privilege of compensation to other dependents as long as dependency lasts. All others have limits on death benefits similar to those placed on disability benefits. It is frequently provided that payments to a dependent child shall continue until a certain age is reached, varying from fifteen to eighteen years. Lump sum benefits are sometimes granted on remarriage.

The expenses of burial are everywhere paid, usually in addition to all other compensation, subject to limits

¹⁷ Penna. Workmen's Compensation Act, § 307.

of from \$50 to \$200; these amounts including, in a few cases, the expenses of the last illness as well.

Medical and Surgical Aid.—All but three¹⁸ of the acts now in force make some provision for medical and surgical aid in addition to other compensation, though three¹⁹ of these extend such aid only to the expenses of the last sickness where there are no dependents. Of the remaining acts the greater number call for aid in some amount with money limits of twenty-five to three hundred dollars and time limits of one week to four months. In a few of these, cases requiring special treatment have a higher limit than ordinary cases. California and Massachusetts, while they set a time limit of ninety days and two weeks respectively, permit their Industrial Accident Commissions to order further aid if required. Under the Connecticut act the employer is obliged to furnish all necessary treatment. "The employer . . . shall provide a competent physician or surgeon to attend the injured employee, and in addition shall furnish such medical and surgical aid or hospital service as such physician or surgeon shall deem reasonable or necessary."²⁰ The federal act makes provision similar to that of Connecticut.

Commutation of Payments.—While compensation must be paid in periodical installments in most jurisdictions, provision is usually made for the commutation of these installments to a lump sum under specified conditions or when the administrative body considers it to be in the interests of justice. Commuta-

¹⁸ Arizona, Washington, and Wyoming.

¹⁹ Kansas, New Hampshire, and Alaska.

²⁰ Connecticut Workmen's Compensation Act, § 7.

tion is frequently permitted for non-residents and those about to remove from the state, and also where the commuted payments will furnish capital sufficient for entrance into some small business enterprise.

Criticism.—Compensation payments, having as their purpose the relief of economic need, may be judged by two standards, adequacy, and adjustment to varying degrees of need. The law should provide for compensation of sufficient amount and for its equitable allotment. To the extent that this is not accomplished an act may be said to fail of achieving its purpose. Complete adequacy, or the granting of one hundred per cent of wages, is, of course, impossible because of the necessity of leaving some incentive for a man to return to work, a necessity which must always be borne in mind when considering a compensation schedule.

There is still considerable disagreement regarding the proper percentage to apply to the loss of earning power. About two-thirds of the state legislatures have declared themselves in favor of a fifty per cent rate, while students of social science seem to favor paying sixty-six and two-thirds per cent. One organization has gone so far as to recommend a seventy-five per cent rate. The payment of two-thirds of the loss of wages more nearly fulfills the purpose of a workmen's compensation law, but the argument is frequently heard that it would lead to malingery. Without careful supervision this is probably true, but with an efficient administrative body the danger is practically *nil*. It is fair to say that the question is

still a subject of controversy with opinion tending toward the higher rate.

Death benefits should not be paid, as they are in the majority of states, regardless of the number or character of dependents. Considerations of this sort directly determine the economic need created by the death of a workman and a law which requires the same payments to a sole survivor as to a widow with several children is obviously unjust. The Pennsylvania act, cited above, is to be commended in this respect, though a payment of ten per cent to a widow or widower for each child under eighteen, with a limit of sixty-six and two-thirds per cent, would be more nearly in accord with justice.

The limitation of the aggregate amount of payments or of the number of weeks during which they are to continue is a widely accepted practice in our legislation which should be condemned without reserve. The same reason exists for the payment of compensation at the end of three hundred or five hundred weeks as existed at the time of the injury or of the death of the workmen, and termination of disability or of dependency should alone operate as a limit to payments. Compensation subject to other limits is better than none and may be, in many cases, the best that the legislature can be induced to provide; but, on economic grounds, it is indefensible.

Periodical installments are far superior to lump sums as a method of payment of compensation benefits, except in special cases. Neither an ordinary workman nor his dependents have the requisite judgment to invest or expend properly a large sum, the payment

of which is likely to lead only to extravagance and future want. The present popularity of life insurance policies payable in installments is significant of the appreciation of such tendencies even among the economically more fortunate classes.

The various specific injury schedules which have been adopted seem to be more the product of imitation than of reason, being based in several states on somewhat similar provisions in accident insurance policies. As a measure of economic loss they are thoroughly inadequate and it is only necessary to point out that the loss of a particular member has a vastly different economic significance in various occupations to show that such schedules are essentially unjust. Contrast, for example, the effect of the loss of a left hand on a book-keeper and the effect of the same loss on a chauffeur. Such injuries should be compensated on the basis of the proportion of disability which they cause.

Lastly, the limits now imposed on medical and surgical aid should be removed and provision made for such care as is reasonably necessary in each case. These limits are now often removed in practice by insurance companies and employers who realize that proper treatment of injured men effects immense economy in the payment of other benefits. For broader but similar reasons the law should require adequate treatment. This, as well as other liberalizing changes, require efficient administration to guard against abuse.

The Computation of Compensation.—Having fixed upon average weekly wages as a basis for the computation of compensation payments, the next step is to provide a method for ascertaining the average wages

in any given case. The Massachusetts act has a typical provision:

"Average weekly wages" shall mean the earnings of the injured employee during the period of twelve calendar months immediately preceding the date of injury, divided by fifty-two; but if the injured employee lost more than two weeks' time during such period, then the earnings for the remainder of such twelve calendar months shall be divided by the number of weeks remaining after the time so lost has been deducted. Where, by reason of the shortness of the time during which the employee has been in the employment of his employer, or the nature or terms of the employment, it is impracticable to compute the average weekly wages, as above defined, regard may be had to the average weekly amount which, during the twelve months previous to the injury, was being earned by a person in the same grade employed at the same work by the same employer; or, if there is no person so employed, by a person in the same grade employed in the same class of employment and in the same district.²¹

A later addition to the act provides that "if it be established that the injured employee was of such age and experience when injured that, under natural conditions, his wages would be expected to increase, that fact may be taken into consideration in determining his weekly wages."²²

In other states a more extended definition is frequently given and specific forms of income are excluded from the computation; for example, money ad-

²¹ Part V. § 2.

²² General Acts of 1915, Chap. 236, § 1.

vanced for expenses incidental to employment, payment for overtime, board and lodging and gratuities unless the money value is fixed in the contract of hire. Occasionally the limits to weekly compensation are expressed in terms of maximum and minimum wages which may be used in computation.

The Industrial Commission of Wisconsin has published a table which shows the compensation payable for total disability under the Wisconsin act, with wages at various levels.²³ The method of construction may be shown by taking a two-dollar wage as an example:

Daily Wage	Times 300 Days	Equals Yearly Wage	Divided by 52 Weeks	Equals Weekly Wage	Of which 65%	Equals Weekly Compensation	Divided by Working Days of Week	Equals Daily Compensation
\$2.00	300	\$600	52	\$11.54	65	\$7.50	6	\$1.25

No set rule can be applied in all cases—it is necessary to leave considerable latitude of action to the administrative body in order to deal equitably with exceptional conditions.

²³ Bulletin No. 12 of the Department of Labor and Industries of Minnesota contains extensive tables showing death and disability benefits payable in that state.

CHAPTER XI

WORKMEN'S COMPENSATION LEGISLATION IN THE UNITED STATES AND TERRITORIES (*Continued*)

ADMINISTRATION

The definition of administration as "legislation in action" ¹ indicates the necessity of especially careful consideration of the administrative provisions of a compensation act. In order that the ends for which the act is designed may be achieved administrative machinery is necessary, for, having secured legislative expression of compensation principles, it is essential that the law be enforced. Practical operation determines its success or failure. To this end the states have adopted various means, some creating new administrative bodies, others relying on existing mechanism.

Administrative Commissions.—Twenty-four states, one territory, and the United States, have adopted the commission form of administration by creating bodies which give exclusive attention to the operation of the compensation law. These bodies have various titles: Industrial Accident Board, Workmen's Compensation Commission, Industrial Insurance Commission, etc.,

¹ Commons and Andrews, "Principles of Labor Legislation." Chap. IX of this book is an excellent treatment of the general problems of administration.

but the purposes of all are the same. In its usual form the commission consists of three or five members with their headquarters at the state capitol. Certain variations from the ordinary plan are worthy of notice; in Iowa and West Virginia the administrative function is vested in a single commissioner, in Connecticut and Kentucky the individual members of the commission are assigned to districts, and in California and Pennsylvania the commission is assisted by referees.

The primary purpose is to put into effect the provisions in the law for compensation payments and to see that justice is done to all parties concerned. But there are certain secondary purposes for which a commission is created and for which it is peculiarly adapted. These are the observation of the operation of the law, the compilation of statistics, and the rendering of reports. Legislation, to be scientific, must be based on experience and, if experience is to be of any service, it must be carefully compiled and properly interpreted and the results placed before the law-making body. When the first compensation laws were enacted in the United States there were only foreign experience and the scattering and inadequate information of a few state labor departments as a guide. Hence the laws contain many unavoidable defects which could be appreciated only after the acts had been in operation for some time. By a process of amendment these defects may be eliminated but accurate and apposite information is needed on which to base corrections. Such information is best supplied by competent experts who are in constant and sympathetic touch with developments, such as those who

comprise the administrative commissions which most of our states have adopted.

The Duties of the Commission.—Although the duties of commissions vary in detail the following may be considered typical:

1. Reports of injuries. Whenever an employee is injured an immediate report must be made to the commission and one or more subsequent reports showing the extent and duration of the injury. These reports are used as a basis for following up individual cases to see that the law is observed and for the compilation of statistics.

2. Approval of compensation agreements. If an injury is compensable the employer, or his insurer, and the employee usually agree on the amount of compensation payable and file this agreement with the commission whose approval is necessary to make it binding.

3. Settlement of disputes. When no agreement can be reached regarding payment of compensation the disputed points may be taken to the commission where the usual procedure is to attempt to arrive at an amicable settlement through arbitration, a member of the commission and representatives of the employer and employee acting as arbitrators. If an agreement cannot be effected in this manner the dispute is brought before the full commission, which makes a ruling. In California and Pennsylvania, as noted above, the commission is assisted by referees who make investigations, assist the parties to reach an agreement, and hear cases in the first instance. If appeal is taken on a question of law the courts may re-

view the decision of the commission and make a final award.

The procedure before the commission or its representatives is strictly informal and they are not bound by the "technical rules of evidence" nor by other rules which are dictated by precedent or formality. Their function is to learn the facts of the case in the simplest and most direct way and to base their decision on a reasonable interpretation both of the facts and of the law. They are called upon to decide a multitude of questions which may in general be grouped under the following heads: (a) Does an injury exist? (b) Is the injury covered by the law? (c) If so, what is its extent and what payments are due?

4. Reports on operation of law. By means of annual reports and special bulletins which are issued from time to time the commission keeps the public and legislators informed of conditions, an educational service of great value. The commission is in a position to perform this service because of its intimacy with the subject matter and because of the authority usually given it to require the filing of information and to make investigations. These reports, in their most useful form, not only contain statistics but present careful analyses and summaries of the work of the commission as well as recommendations for future improvements.²

5. Securing coöperation. Four separate classes are intimately associated in the operation of a compensation law; employers, employees, insurance companies,

² See, for example, the annual reports of the Industrial Accident Board of Massachusetts.

and physicians. Among these classes opposing viewpoints frequently develop and the central body is necessary to bring about a greater degree of harmony and a realization that the interests of all those concerned in compensation work are mutual, though at times they may apparently be conflicting.

The duties outlined above indicate particular features of a commission's work and suggest the reasons for creating such a body. Eight states and one territory, however, have created no special administrative machinery, leaving the settlement of disputes to the courts and the collection of data and making of reports to the labor office of the state.

Advantages of the Commission Plan.—From such widespread adoption of the commission form of administration it is evident that this plan must have decided advantages to offer. The greatest of its advantages is found in the expert character of the commissions. Their members devote their entire time to compensation work and under them is centralized all phases of the problem so that each may be treated in relation to all others and with real consideration for the economic purposes of the law. Judges in courts of law, with cases coming before them on many unrelated subjects, can seldom make any special study of compensation and, even where they are able to do so, are likely to permit the legal viewpoint to overshadow the economic. The commission is in a better position to put into practice the real purposes of the law through their knowledge of the inter-relation of its parts and of the several aspects of its operation.

Another advantage of the commission is a reduction

in expense and delays. By means of informal procedure and a limitation of fees, the workman is enabled to get a hearing with little or no expense and to secure relatively prompt decision of his case, considerations which are extremely important in the successful operation of a compensation law. Further, a commission can make investigations on its own initiative and can correct abuses and evasions of the law without waiting for a formal complaint and without confining itself to the questions which might be brought before it in a particular case.

The duty of the commission to report on the operation of the law has already been mentioned. This function is most important, for it applies the scientific methods of research and weighing of results to public work and enables the development of sound theory as a basis for future procedure.

Disadvantages of the Commission Plan.—It may be argued that appointed commissions entail a considerable expense, that their grade of efficiency is lower than that of the bench and that political considerations will hamper their work. All of these arguments have considerable weight but they are not sufficient to justify a legislature in leaving the administration of a compensation law to the courts. Compensation is a new and intricate phase of public work and a specialized body of men is required to supervise efficiently its application.

MISCELLANEOUS PROVISIONS

Burden of Cost.—The burden of cost of compensation is placed on the employer as the representative

of industry in all but four states. In Oregon the employer is "authorized and required" to deduct from the wages of each workman one cent "for each day or part of a day" that the workman is employed and to turn this collection over to the state fund. In West Virginia the employer is authorized but not required to deduct from wages ten per cent of the premium payable for insurance in the state fund. In Montana and Nevada the employee may be asked to contribute not over one dollar per month to a hospital fund.³

General opinion is decidedly opposed to requiring the workmen to contribute to the cost of compensation. His suffering and the loss of a portion of his wages is a sufficient share in the burden of industrial injuries and any other contribution is contrary to the best theory and practice. There is some justification nevertheless in a contribution to hospital expenses, provided all cases of illness and injury, industrial and otherwise, receive treatment, but the employee's payment should represent no more than the cost of caring for non-industrial cases.

Compensation a Preferred Claim.—Compensation payments generally have the same preference over other claims as that given to unpaid wages of labor. A few states make no provision for such preference, though the wisdom of doing so is obvious.

Assignments and Exemptions.—In no state are compensation payments subject to assignment nor may

³In West Virginia the 10% is deducted by employers in coal mining, the largest industry, but the greater proportion of employers in other industries make no collection. In Nevada and Montana hospital agreements are general.

they be attached or levied upon for claims of creditors.

Accident Prevention.—It is common but by no means universal to authorize or require the commission to promulgate and enforce rules for the installation of safety devices and for the conduct of employees. In Washington disobedience to a statute or to an order of the commission entails a penalty on the employer of fifty per cent of the compensation awarded, this amount to be paid into the accident fund; and if the injured employee is responsible for the removal of a safeguard his compensation is reduced by ten per cent.

The prevention of accidents is quite as important as their compensation and the encouragement and requirement of preventive measures should be developed in harmony with the administration of the compensation law. To this end it is wise to invest the administrative commission with power over the prevention of accidents or, if that power is given to another department, to provide for their correlation. Compensation is a palliative while prevention is a cure.

Other Provisions.—Provisions are commonly inserted in compensation laws to define the liability of an employer for compensation to employees of a contractor and the liability of a principal contractor to employees of a sub-contractor. The time and manner of filing notices of acceptance or rejection of the act, notices of injury, and claims for compensation are also usually specified and the employer is usually given the right to demand a medical examination at proper intervals. Some states specifically include or

exclude accidents occurring outside of the state from the benefits of the law.

There are various provisions other than those already mentioned embodying rules, definitions, and technical points which are necessary but not fundamental. Their inclusion in a general summary of compensation principles is hardly warranted.⁴

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⁴ Provisions concerning the insurance of workmen's compensation have been omitted as they will be considered in Part III.

The Workmen's Compensation Law of New York is contained in Appendix A. This law is presented as illustrative of many of the principles discussed in Chapters IX, X, and XI. Careful study of its provisions is advised in connection with the study of the law of the student's home state.

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CHAPTER XII

THE CONSTITUTIONALITY OF WORKMEN'S COMPENSATION LAWS

The law of employer's liability is a formulation in rules of the economic responsibility of the employer to the employee incident to industrial accidents. Workmen's compensation laws constitute a set of rules the object of which is to substitute a new economic responsibility more in accord with modern conditions. In making the change a legislature is not free to enact any rules which may appeal to it as desirable, for all laws, to be valid, must be constitutional. They must contain no provisions which run counter to the provisions of the constitution of the United States or of the individual state. Final determination of the validity of a state statute rests with the Supreme Court of the United States, though on questions involving the constitution of a state, the decision of the court of last resort of the particular state is final.

Workmen's compensation laws have frequently been attacked in the state courts on grounds of unconstitutionality and numerous opinions have been handed down, in most cases sustaining the acts. Only four cases have been decided by the United States Supreme Court.

COMPULSORY LAWS

The Ives Case.—The first important decision on the constitutionality of a workmen's compensation law was that of the Court of Appeals of New York in *Ives v. South Buffalo Railway Co.*¹ Earl Ives, a switchman, alleged that he had been injured while employed on the railroad "solely by reason of a necessary risk or danger of his employment" and sued the railway company to recover the compensation provided by the compulsory New York act of 1910 for such cases. The defendants admitted the allegations of Ives but argued that the provisions of the compensation law violated both the federal and state constitutions. Judgment was rendered for the plaintiff by the lower courts, but the Court of Appeals ruled in favor of the defendant, declaring the law to be repugnant to the constitutions of the United States and of New York.

The New York act of 1910 enumerated eight classes of "especially dangerous" employments and required that all personal injuries from accidents occurring in the course of these employments should be compensated by the employer according to a fixed schedule if the injury was in whole or part contributed to by:

- (a) A necessary risk or danger of the employment or one inherent in the nature thereof; or
- (b) Failure of the employer . . . to exercise due care, or to comply with any law affecting such employment.

¹94 N. E. 431 (March 24, 1911).

Injuries resulting in any degree from the "serious and willful misconduct of the employee" were excepted. The statute further provided that an employee might bring suit in the courts to enforce his right to payments under the act. It was specifically stated that the act was not to affect the common law rights of the employee but that its acceptance, or the initiation of proceedings to recover compensation under its terms, should bar recovery at common law.

The court, after a brief rehearsal of the economic basis of compensation as explained by the Wainwright Commission, which drafted the bill, made the statement that:

Under our form of government . . . courts must regard all economic, philosophical, and moral theories, attractive and desirable though they may be, as subordinate to the primary question whether they can be molded into statutes without infringing upon the letter or spirit of our written constitutions.

This did not prevent the court from voicing its conservative fear, in another part of the opinion, that the arguments used to support the compensation statute might be carried further to justify a compulsory redistribution of wealth; and, in connection with the fact that decrees of Parliament are the supreme law in England, reference was made to the "paternalism which logically results from a universal employer's liability based solely upon the relation of employer and employee, and not upon fault in the employer."

The power of the legislature to abrogate the doctrines of contributory negligence and of common em-

ployment was admitted by the court but the power to modify the doctrine of assumption of risk was held to be limited by constitutional provisions. The 1910 law abrogated all three except in the case of accidents due to the serious and willful misconduct of the employee.

It was argued that the selection of certain specified industries was contrary to the fourteenth amendment of the federal constitution which guarantees the equal protection of the laws to all citizens and that the provisions for a scale of compensation and for the settlement of disputes denied the right of trial by jury which was guaranteed by the state constitution. The classification of industries was upheld as resting on "proper and justifiable distinctions," but no opinion was given on the latter question, as the members of the court failed to agree.

The court then took up the argument that the new statute deprived the employer of property without due process of law and said in part:

We conclude, therefore, that in its basic and vital features the right given to the employee by this statute does not preserve to the employer the "due process" of law guaranteed by the constitutions, for it authorizes the taking of the employer's property without his consent and without his fault.

Considerable attention is devoted to the police power under which the supporters of the law attempted to justify it. That it was considered to be in no wise a proper application of the police power is best shown by further quotation from the opinion:

. . . statutory provisions which are designed, in one way or another, to conserve the health, safety, or morals of the employees, and to increase the duties and responsibilities of the employer, or rules of conduct which properly fall within the sphere of the police power. . . . But the new addition to the labor law . . . does nothing to conserve the health, safety, or morals of the employees, and it imposes upon the employer no new or affirmative duties or responsibilities in the conduct of his business. . . . Under this law, the most thoughtful and careful employer, who has neglected no duty, and whose workshop is equipped with every possible appliance that may make for the safety, health, and morals of his employees, is liable in damages to any employee who happens to sustain injury through an accident.

The court goes on to say that there is

. . . a vital distinction between legislation which imposes upon an employer a legal duty for the failure to perform which he may be penalized or rendered liable in damages, and legislation which makes him liable notwithstanding he has faithfully observed every duty imposed upon him by law. . . . But when an industry or calling is *per se* lawful and open to all, and therefore beyond the prohibitive power of the legislature, the right of governmental control is subject to such reasonable enactments as are directly designed to conserve health, safety, comfort, morals, peace, and order. . . . For the failure of an employer to observe such regulations the legislature may unquestionably enact direct penalties or create presumptions of fault which, if not rebutted by proof, may be regarded as sufficient evidence of liability for damages. That must be the extreme limit of the police power, for just beyond is the constitution, which, in substance

and effect, forbids that a citizen shall be penalized or subjected to liability unless he has violated some law or has been guilty of some fault.

Since the act was held to deprive the employer of property without due process of law and not to be justified under the police power it was declared void and the judgment of the lower court reversed. This case has been considered at some length as it treats very fully the negative arguments on the subject of the constitutionality of compulsory workmen's compensation and indicates the line of attack used in later cases.

*The Clausen Case.*²—In this case, decided by the Supreme Court of the State of Washington, six months after the Ives case, the constitutionality of a compulsory workmen's compensation act was again before the court. An action was brought to compel the state auditor to issue a warrant on the treasurer in payment for material purchased by the Industrial Insurance Department which had been created by the act. The auditor refused to issue the warrant on the ground that the act was unconstitutional and that therefore he would not be justified in recognizing an obligation incurred under its terms. The New York and the Washington laws were alike in principle, except that the former provided only for a right of recovery while the latter required the employer to pay periodical amounts into an "accident fund" from which injured employees were to receive compensation payments.

² *State ex rel. Davis-Smith Co. v. Clausen, State Auditor* (Sept. 27, 1911), 117 Pac., 1101.

The law was challenged on four grounds: first, that it violated the state and federal constitutions by depriving employers of property without due process of law; second, that it violated both constitutions as it did not apply equally to all persons and corporations; third, that it violated the state constitution which provides that all property shall be taxed according to its value in money and that taxation shall be equal and uniform; and fourth, that it violated the state constitution by abrogating the right of trial by jury.

Little comment is necessary concerning the last three contentions. The court decided that the classification of industries for the purposes of the law was not class legislation, that the contributions to the state fund were not taxes in the sense implied by the constitution, and that the elimination of the right of action for injury left the right of trial by jury nothing on which to operate though there was ample precedent for denying trial by jury through regulatory laws.

On the question of due process of law the Washington court reached a conclusion opposed to that of the New York justices. The fundamental difference lay in the attitude of the two bodies, the former showing unwillingness to apply constitutional restraints and a disposition to give the police power a broad interpretation, while the latter put the burden of proof on the proponents of the act.

Counsel for the auditor argued that the act created a liability without fault and took the property of one employer to pay the obligations of another. But the court held that:

These conditions do not furnish an absolute test of the validity of the act. In the statute books of the several States are many statutes held constitutional by the courts where liability is created without fault, and where the property of one person is taken to pay the obligations of another, and this where no compensation is made to the person who is thus made liable or whose property is thus taken, other than perhaps the bestowal upon him of some privilege. The test of the validity of such a law is not found in the inquiry: Does it do objectionable things? But it is found rather in the inquiry: Is there no reasonable ground to believe that the public safety, health, or general welfare is promoted thereby? . . . In other words, the test of a police regulation, when measured by this clause of the Constitution, is reasonableness, as contradistinguished from arbitrary or capricious action.

The opinion then cites various examples of analogous statutes, many of which the New York court had held to rest on other grounds than those on which it was sought to justify the compensation act. A case involving the Oklahoma depositors' guaranty law was quoted with particular approval.⁸ This law provides that state banks shall contribute a percentage of their deposits to a state fund from which depositors in insolvent banks are to be indemnified. It was upheld as constitutional by the Supreme Court of the United States and its provisions offer an almost exact analogy to the Washington compensation law.

Further quotation shows the extreme liberality with which the court viewed the police power and its re-

⁸ *Noble State Bank v. Haskell*, 31 Sup. Ct., 186.

luctance to interfere with enactments of the legislature:

If, therefore, the act in controversy has a reasonable relation to the protection of the public health, morals, safety, or welfare, it is not to be set aside because it may incidentally deprive some person of his property without fault or take the property of one person to pay the obligations of another. To be fatally defective in these respects, the regulation must be so utterly unreasonable and so extravagant in nature and purpose as to capriciously interfere with and destroy private rights . . . the courts are slow to inquire into the mere wisdom of a statute . . . the courts will interfere only when there can be no two opinions as to the mischievous and evil tendencies of the act. The act in question here was framed by a commission composed of men eminent for their ability, . . . was selected by the legislature from among a number of proposed acts . . . the court can not do otherwise than put it to the test of practice.

Referring to the Ives case the court said:

The act the court there had in review is dissimilar in many respects to the act before us, and is perhaps less easily defended on economic grounds. The principle embodied in the statutes is, however, the same, and it must be conceded that the case is direct authority against the position we have here taken. We shall offer no criticism of the opinion. We will only say that notwithstanding the decision comes from the highest court of the first State of the Union, and is supported by a most persuasive argument, we have not been able to yield our consent to the view there taken.

Supreme Court Decisions.—As a result of the decision in the Ives case the State of New York adopted an amendment to its constitution, effective January 1, 1914, permitting the enactment of a compulsory compensation law.⁴ A new compulsory law was enacted in December, 1913, and reenacted in 1914, to take effect July 1, 1914. This act was sustained by the Court of Appeals of New York as conforming to the provisions of both state and federal constitutions in *Jensen v. Southern Pacific Co.*⁵ and in *New York Central R. R. Co. v. White*.⁶ The latter was appealed to the United States Supreme Court and a decision sustaining the act rendered on March 6, 1917.⁷ In its opinion, the court held that the legislature had full power to change the law of negligence, though opinion was reserved on the question whether the legislature "could abolish all rights of action on the one hand, or all defenses on the other, without setting up something adequate in their stead." The question considered was "whether the method of compensation that is established as a substitute transcends the limits of permissible state action." In approving the method prescribed by the law the court said:

. . . there is the loss of earning power; a loss of that which stands to the employee as his capital in trade. This is a loss arising out of the business, and, however

⁴ Constitution of the State of New York, Art. I, Sec. 19. Similar constitutional provision has been made in Arizona, California, Ohio, Pennsylvania, Vermont, and Wyoming.

⁵ 215 N. Y. 514.

⁶ 216 N. Y. 653.

⁷ No. 320—October Term, 1916.

it may be charged up, is an expense of the operation, as truly as the cost of repairing broken machinery or any other expense that ordinarily is paid by the employer. Who is to bear the charge? It is plain that, on grounds of natural justice, it is not unreasonable for the State, while relieving the employer from responsibility for damages measured by common law standards and payable in cases where he or those for whose conduct he is answerable are found to be at fault, to require him to contribute a reasonable amount, and according to a reasonable and definite scale, by way of compensation for the loss of earning power incurred in the common enterprise, irrespective of the question of negligence, instead of leaving the entire loss to rest where it may chance to fall—that is, upon the injured employee or his dependents. Nor can it be deemed arbitrary and unreasonable, from the standpoint of the employee's interest, to supplant a system under which he assumed the entire risk of injury in ordinary cases, and in others had a right to recover an amount more or less speculative upon proving facts of negligence that often were difficult to prove, and substitute a system under which in all ordinary cases of accidental injury he is sure of a definite and easily ascertained compensation, not being obliged to assume the entire loss in any case but in all cases assuming any loss beyond the prescribed scale.

The fact that the act creates liability without fault was held not to be a ground for declaring it unconstitutional and it was further supported as a legitimate exercise of the police power. The requirement that the employer secure the payment of compensation by taking out insurance or by giving proof of financial responsibility, accompanied by a deposit of securities,

was upheld as a "permissible regulation in aid of the system."

Another opinion was handed down on the same day in the case of *Mountain Timber Co. v. The State of Washington*,⁸ sustaining the Washington act.⁹ It was pointed out that the principles involved were the same as those in the New York case as far as employees were concerned but that additional requirements were made on employers, who were compelled to contribute to an accident fund from which payments of compensation were to be made.

After stating that the act could not be held to exclude the right of trial by jury because the abolition of the right of recovery in ordinary cases left nothing to be tried by jury, the court said:

The only serious question is that which is raised under the "due process of law" and "equal protection" clauses of the Fourteenth Amendment. It is contended that since the Act unconditionally requires employers in the enumerated occupations to make payments to a fund for the benefit of employees, without regard to any wrongful act of the employer, he is deprived of his property, and of his liberty to acquire property, without compensation and without due process of law. It is pointed out that the occupations covered include many that are private in their character, as well as others that are subject to regulation as public employments, and it is argued that with respect to private occupations (including those of plaintiff in error) a compulsory compensation act does not concern the interests of the public generally, but

⁸ 75 Wash. 581; No. 13—October Term, 1916 (U. S.).

⁹ Four justices dissenting.

only the particular interests of the employees, and is unduly oppressive upon employers and arbitrarily interferes with and restricts the management of private business operations.

Further:

Whether this legislation be regarded as a mere exercise of the power of regulation, or as a combination of regulation and taxation, the crucial inquiry under the Fourteenth Amendment is whether it clearly appears to be not a fair and reasonable exertion of governmental power, but so extravagant or arbitrary as to constitute an abuse of power. All reasonable presumptions are in favor of its validity, and the burden of proof and argument is upon those who seek to overthrow it. In the present case it will be proper to consider: (1) Whether the main object of the legislation is, or reasonably may be deemed to be, of general and public moment, rather than of private and particular interest, so as to furnish a just occasion for such interference with personal liberty and the right of acquiring property as necessarily must result from carrying it into effect. (2) Whether the charges imposed upon employers are reasonable in amount, or, on the other hand, so burdensome as to be manifestly oppressive. And (3) whether the burden is fairly distributed, having regard to the causes that give rise to the need for the legislation.

Applying these principles it was decided that compensation was "of sufficient public moment . . . to be administered through state agencies" and that the burden on industry was not excessive. The exclusive compulsory state fund principle was upheld in the following terms:

. . . In the absence of any particular showing of erroneous classification—and there is none—the evident purpose of the original act to classify the various occupations according to the respective hazard of each is sufficient answer to any contention of improper distribution of the burden amongst the industries themselves . . . we are unable to discern any ground in natural justice or fundamental right that prevents the State from imposing the entire burden upon the industries that occasion the losses.

We are clearly of the opinion that a State . . . may require that these human losses shall be charged against the industry, either directly . . . or by publicly administering the compensation and distributing the cost among the industries affected by means of a reasonable system of occupation taxes.

We are unable to find that the Act, in its general features, is in conflict with the Fourteenth Amendment.

These decisions establish the constitutionality of the compulsory principle so far as the federal constitution is concerned. The divided opinion on the Washington case, however, leaves the constitutionality of a compulsory exclusive state fund somewhat in doubt.

ELECTIVE LAWS

The decision in the Ives case led to the passage of elective laws in many states to dodge the constitutional question.¹⁰ Such laws have been attacked on

¹⁰ For an explanation of methods of election see p. 104 ff.

the ground that the alternatives presented are discriminatory and that in practical effect they amount to a deprivation of property without due process of law. These contentions have failed of support in the highest court of every state except Kentucky where the original elective act, which provided for a presumption of election and which abrogated the common-law defenses for employers who rejected the law, was declared unconstitutional.¹¹ The United States Supreme Court has passed on two elective laws in the cases of *Jeffrey Mfg. Co. v. Blagg*,¹² and *Howkins v. Bleakly and Garst*.¹³ In the former case the only question considered was whether the provision of the Ohio law limiting its application to employers with five or more employees was justifiable classification. It was decided that such classification was within the power of the legislature.

The latter case, involving the Iowa elective law and decided on the same day as those involving the constitutionality of the New York and Washington compulsory laws, brought up the whole question of the validity of the principle of presumptive election combined with the removal of common law rights in case of rejection. The reasoning of the court in the other two cases applied *a fortiori* to this case and the opin-

¹¹ *Kentucky State Journal v. Workmen's Compensation Board*, 170 S. W. 1166. Leading cases for the contrary view are: *In re Opinion of Justices*, (Mass.) 96 N. E., 308; *Borgnis et al. v. The Falk Co.*, (Wisc.) 133 N. W. 209; *State ex rel Yapple v. Creamer*, 85 Ohio St. 349; *Middleton v. Texas Power and Light Co.*, (Tex.) 185 S. W. 556.

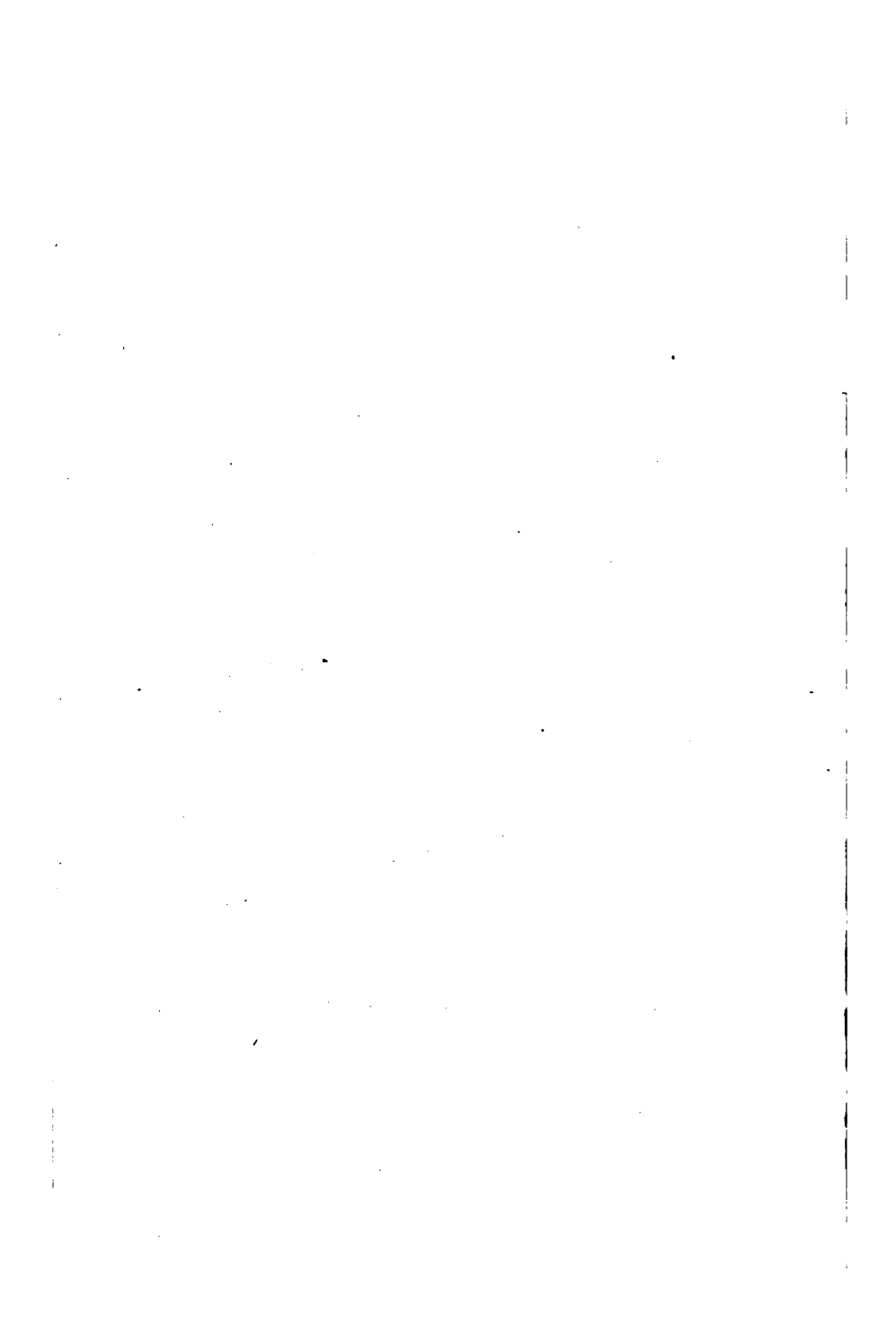
¹² 235 U. S. 571.

¹³ No. 35—October Term, 1916.

ion leaves no doubt of the constitutionality of the elective principle.

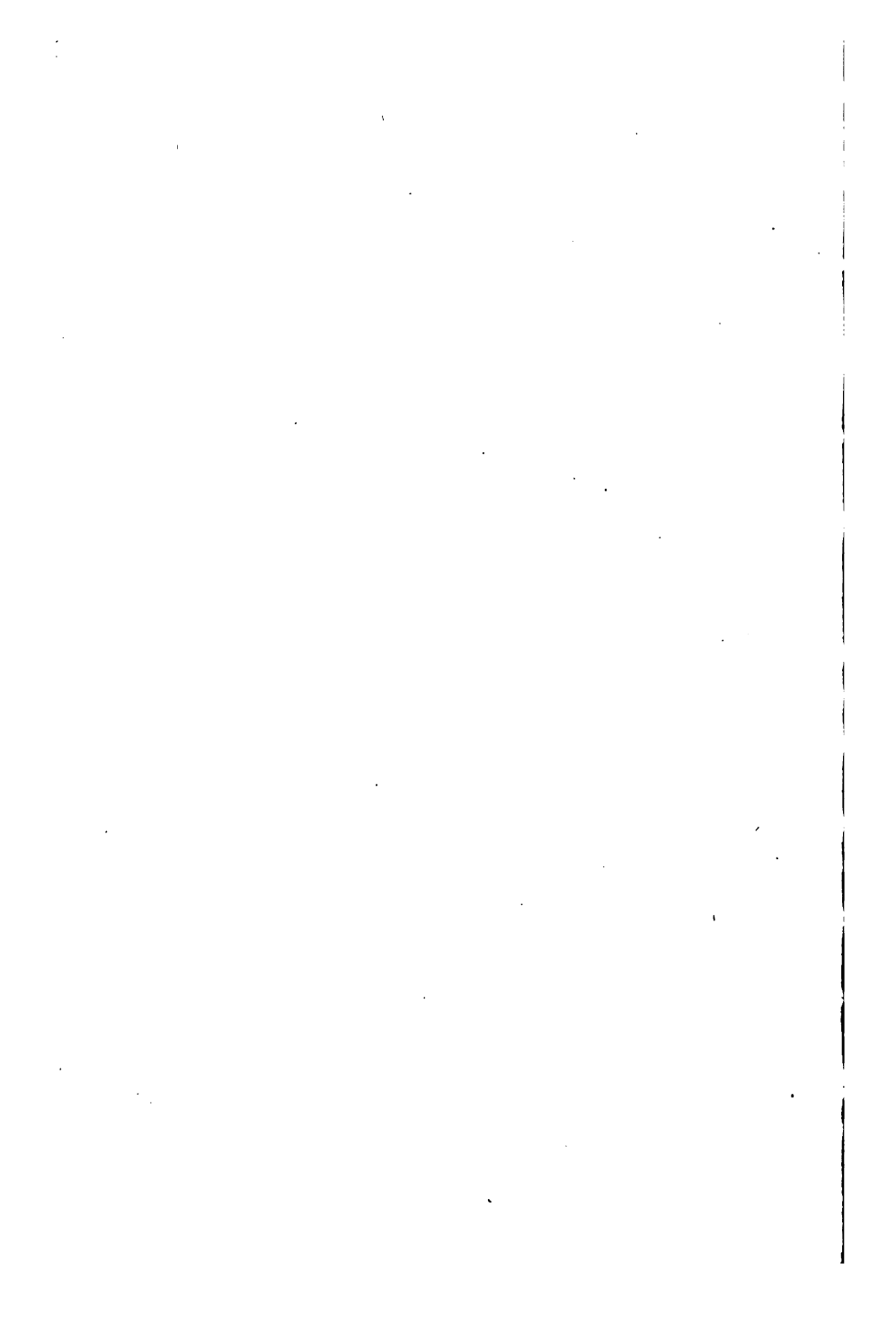
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The cases cited in this chapter and the additional citations which they contain are the best sources for further study.



PART III

**EMPLOYERS' LIABILITY AND WORKMEN'S
COMPENSATION INSURANCE**



CHAPTER XIII

THE THEORY OF INSURANCE AS APPLIED TO EMPLOYERS' LIABILITY AND WORKMEN'S COMPENSATION.

Insurance, from the viewpoint of most people, is an institution which provides an opportunity for securing themselves against financial loss of many kinds by the payment of a stated annual sum proportioned to the extent of the security. To secure themselves against loss by fire they pay fire insurance companies an annual premium, in consideration of which the companies will indemnify them for any damage by fire to the property insured, not exceeding the amount stated in the policy. To secure their families against loss of their income through death they make similar payments to a life insurance company. Practically every variety of financial loss may be prepared for in this manner.

When the policyholder pays his premium to the insuring company and receives in return a guarantee against loss to the extent of the sum named in the policy, he has relieved himself of a risk and has brought certainty into his affairs where before uncertainty existed. But it might seem that the insurance company, which has taken over the risk, has placed itself in a more uncertain position by adding to the

possible losses which it may be called upon to indemnify—a service for which the premium might appear disproportionately small. As a matter of fact the addition of a new risk, with the payment of a scientifically calculated premium, increases the certainty with which the affairs of the company may be conducted, though not in so simple a fashion as is the case with the individual who pays the premium. The insurance company is able to assume additional risks with increasing certainty by reason of the application in its business of the theory of probability as applied to large groups of risks. To comprehend the insurance business in its fundamentals it is necessary to understand this theory on which it is founded.

THE THEORY OF PROBABILITY

The use of the theory of probability is based on the reasoned conviction that a knowledge of the past is a sufficient guide to events of the future; that, given the same conditions, we may expect the same results. According to this doctrine, if one desires to predict the results of certain present conditions, it is only necessary to learn what results have already been produced by exactly similar conditions. But exactly corresponding conditions are difficult or impossible to find and, were they essential to the operation of the theory, little practical use could be made of it. It is possible, however, by the accumulation of a large number of cases, to secure conditions which, as a whole, approximate those of the past and whose results may be expected to correspond with past results.

Accuracy of the Theory.—The accuracy of any prediction based on the theory of probabilities, or the relative approximation of theoretical and actual experience, depends on three factors. (1) the degree of correspondence between the two sets of conditions, (2) the accuracy of the data, and (3) the number of cases considered in each set.

The use of industrial accident statistics to determine probable future accident rates will serve as an example of the influence of the first two factors. Suppose that the accident rate for the past three years in cotton factories averaged sixty-five per one thousand employees per year. Suppose further that during the coming year many new devices for the prevention of accidents are installed, and that more careful attention is given to the reporting of accidents. Knowing these facts, may we consider the average of the past three years a reliable index to the number of accidents during the coming year? Evidently not, for the conditions given differ; in the past there were not the same facilities for the prevention of accidents, and figures based on past conditions could be used only to indicate a maximum rate which the better equipped factories will probably not attain. But there is also an improvement in methods of accident reporting which suggests that the statistics of the last three years were probably inaccurate. More careful reporting may bring in accounts of accidents which before would have passed unnoticed and the apparent increase from this source may offset the tendency of the rate to decrease as a result of safety work. For statistics to be of the greatest service for the prediction of future

events the influence of new elements must be reduced to a minimum, or that influence itself be made a subject of prediction by the introduction of other statistics showing its probable effect.

An experiment undertaken and described by Dr. Bruce D. Mudgett is an excellent illustration of the influence of the number of cases considered:

An ordinary copper cent was flipped three hundred times and the results; whether heads or tails up, were recorded for each ten throws. If the probable experience had agreed absolutely with the actual, the results would have shown five throws heads and five throws tails for each ten trials. The actual results are recorded herewith:

RESULTS OF EACH 100 TRIALS IN GROUPS OF TEN	
First 100 trials	Heads 8-2-6-4-3-4-3-5-6-4 = 45
	Tails 2-8-4-6-7-6-7-5-4-6 = 55
Second 100 trials	Heads 5-6-5-5-8-5-6-6-2-5 = 53
	Tails 5-4-5-5-2-5-4-4-8-5 = 47
Third 100 trials	Heads 7-5-1-5-5-6-7-5-5-6 = 52
	Tails 3-5-9-5-5-4-3-5-5-4 = 48

The table shows that in thirty trials of ten throws each the actual experience coincided with the probable in eleven cases, that in two instances heads appeared eight times out of ten, and in one case only once. These results in groups of ten may be combined into groups of twenty, thirty, fifty, one hundred, or in a single group of three hundred, and comparisons may then be made of the fluctuations in those respective groups. By this arrangement the original data assume the form shown on page 165. In this table the data are arranged in fifteen groups of twenty throws each, ten groups of thirty, six of fifty, three of one hundred, and a single group of three

RESULTS OF 300 THROWS BY SPECIFIED GROUPINGS

Number of Throws in Each Group	Number of Times Heads or Tails		Number of Groups
20	Heads	10-10- 7- 8-10-11-10-13-12-7 -12- 6-11-12-11	15
	Tails	10-10-13-12-10- 9-10- 7- 8-13- 8-14- 9- 8- 9	
30	Heads	16-11-14-15-18-17-14-11-18-16	10
	Tails	14-19-16-15-12-13-16-19-12-14	
50	Heads	23-22-29-24-23-29	6
	Tails	27-28-21-26-27-21	
100	Heads	45-53-52	3
	Tails	55-47-48	
300	Heads	150	1
	Tails	150	

hundred throws and the number of times the coin fell heads or tails is shown for each group. The important fact to be considered is the relation between the probable and the actual experience in each grouping of the data. For instance, in twenty throws the probability is that heads will appear ten times, but the figures show that in one case this result occurred thirteen times and once only six; in thirty throws heads appeared as many as eighteen times in two instances and as few as eleven the same number of times. The following brief table shows the maximum and the minimum number of times the coin turned heads up in any single trial of the specified number of throws:—

FLUCTUATIONS IN NUMBER OF TIMES HEADS

In Groups of	Number of Times Tried	Maximum Number Times Heads Appeared	Minimum Number Times Heads Appeared
10 throws	30	8	1
20 “	15	13	6
30 “	10	18	11
50 “	6	29	22
100 “	3	53	45
300 “	1	150	150

If these data are now reduced to the form of percentages the results can be more readily compared, for the amount of the fluctuations will then have a common basis. It is understood that the probability of the coin falling heads up is $\frac{1}{2}$ and this will be represented by fifty per cent. The variation of the actual percentage from fifty per cent will therefore be the measure of the variation. The table presented herewith gives the results obtained:

PERCENTAGE OF TIMES HEADS UP

In Groups of	Maximum per cent	Minimum per cent
10	80	10
20	65	30
30	60	36.7
50	58	44
100	53	45
300	50	50

This table furnishes the basis for an important generalization with reference to the accuracy of the theory of probability. It shows that where the coin was thrown ten times the results varied from a minimum of ten per cent to a maximum of eighty per cent; where twenty throws were made the variation was less, viz., from thirty to sixty-five per cent; and that as the number of throws increased the variation became smaller and smaller and the percentage of times heads appeared approached fifty, the true probable percentage. That the three hundred throws resulted in exactly one hundred and fifty heads must be regarded as an accident; but it can be said with equal certainty that it would be impossible out of *any* three hundred purely chance throws to get as many as eighty per cent or as few as ten per cent to fall heads up. The generalization referred to above is as follows: Actual experience may show a variation from the true "probable" experience but as the number of trials is increased this variation decreases; and if a very great number of trials were taken the actual and the probable experience would coincide. Concretely, if the coin were flipped ten million times and it were a pure chance which

way it would fall, the actual results would be so near five million times heads that the difference would be negligible. This generalization is called the law of average. This law is fundamental to all insurance. Premium rates are based on probable losses and will not accurately measure the risk unless the actual experience approximates the probable. That this approximation shall be realized it is at all times necessary to deal with a sufficiently large number of cases to guarantee that great fluctuations in results will be eliminated, i. e., to insure the operation of the law of average.¹

It is to be noted that this generalization regarding the constancy of large numbers is applicable to the group of cases from which statistical data have been secured and also to the group about which it is desired to make predictions for the future. Both groups must be sufficiently large to secure the operation of averages if accurate results are to be obtained.

APPLICATION OF THE THEORY OF PROBABILITY TO THE INSURANCE OF EMPLOYERS' LIABILITY AND WORKMEN'S COMPENSATION

Every employer is subject to the risk of being obliged to compensate his employees for injuries, under the terms either of the law of employers' liability or of a workmen's compensation act. If he de-

¹Mudgett, "The Measurement of Risk in Life Insurance," Chapter XI in "Life Insurance, a Textbook," by Dr. S. S. Huebner. Dr. Mudgett's discussion of "The Science of Life Insurance" in Part II of this book gives the reader a clear exposition of the possibilities of the application of probabilities to past experience where the data are accurate and sufficient.

nies compensation he may be put to the expense and trouble of defending himself in court or before an administrative commission, besides satisfying any award which may be made. Naturally, the assumption of these risks by a third party is a distinct service to the employer, since it relieves him of the uncertainty entailed by their existence and permits him to devote all of his attention to other problems, and he will be willing to pay for the service in proportion to the importance which he attaches thereto. It is for the performance of such a service that insurance organizations have been formed and it is to the employer's willingness to pay for the service that they owe their existence.

The primary problem which confronts the management of an insurance organization is that of quoting a price for its service. The premium rate, as the price for insurance services is designated, must be sufficient to cover all losses, pay all expenses and, in the case of stock companies, yield a margin of profit. On the other hand, it must be low enough to induce employers to transfer their risk to the organization and, in the interests of justice, must not be excessive and must discriminate between industries and employers according to the relative burden assumed by the insurance carrier. In fine, a measure of the risk assumed is necessary in the interests of both parties to the contract of insurance.

The insurer finds such a measure in past experience and applies it to a given risk in accordance with the laws of probability, bearing in mind the necessity of homogeneous groups, of accurate data, and of a broad

exposure. Suppose, for example, that during the past three years employers in the boot and shoe industry have had an average expense on account of liability for injuries to their employees of twenty cents per one hundred dollars of payroll per year. Suppose that, during the coming year, circumstances affecting the occurrence of injuries, their severity, and liability for damages are not changed. An employer, in whose plant average conditions obtain, desires a quotation of a premium rate for the assumption of his liability risk. The insurer can add to the "loss cost" of twenty cents an amount for administrative and acquisition expenses, unforeseen contingencies, and profit, and quote a rate. Supposing these additions to total forty per cent of the final premium the rate in this case would be thirty-three and one-third cents per one hundred dollars of payroll per year.

The receipts in premiums from this employer may not cover the disbursements made necessary by the assumption of his risk, but the receipts from all employers should cover all disbursements and leave a reasonable profit. It is because of their ability to combine risks that the insurance company can safely assume a risk which it would be folly for the individual employer to carry. The employer can provide for the securing of accurate data and may have homogeneous groups, but only in exceptional cases are his groups large enough to bring into play the law of average. This is the peculiar function of the professional insurance carrier.²

² It is true that some of our large corporations are in a position, because of their size, to become successful "self-insurers"

Practical Qualifications.—In the application of the theory of probability to the business of insurance many difficulties are encountered. It is often necessary to quote rates before sufficient experience has developed. In many classes of risks conditions change so rapidly that statistics of the past lose some or all of their value as a basis for estimates of future happenings. Again, certain classes are too small in extent to furnish a true average.

Difficulties of this sort are met in two ways; by the exercise of judgment in allowing for probable inaccuracies, and by accumulating a fund which may be drawn upon to meet unexpected disbursements. Sometimes judgment is used in quoting rates for a given risk by making use of the statistics of losses on analogous risks, sometimes an estimate of the effect of changed conditions will be applied to accumulated statistical experience with the type of risks in question. Judgment was a particularly large factor in the quotation of employers' liability insurance rates; it is still a factor of importance in rates for the insurance of workmen's compensation.

The contingency reserve or surplus is an essential feature of any kind of insurance where statistics are not a thoroughly reliable guide to the future. Such funds are very necessary in the conduct of liability and compensation insurance, in which there are still many statistical problems to be solved and in which the accumulation of experience covers neither sufficient risks

and attain accurate results in the application of the theory of probability to their past experience. Such cases are, however, unusual.

nor a sufficient period of time to be considered thoroughly reliable.

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CHAPTER XIV

METHODS OF INSURANCE

Self-insurance.—The term *self-insurance* is usually applied to the practice of employers who do not shift their risk of loss to an insurance organization. The term is a misnomer unless the business in which the employer is engaged is sufficiently extensive to produce dependable average results and unless a sufficient fund is accumulated actually to *insure* the payment of claims. Where these conditions do not obtain the employer is merely “carrying his own risk,” the very opposite of insurance.

The employer, in refusing to shift his risk of loss, is moved by a desire to save expense. If he carries his own risk he will not be obliged to contribute to the costs of maintaining an insurance organization. Further, his payments of losses will reflect conditions in his plant and he will retain for himself any savings from accident prevention. He will, however, be subject to the embarrassment of unusually large losses and to the trouble and expense of adjusting claims and administering the payment of benefits.

To the employee the possible disadvantages of “self-insurance” are very great, so great that it is not permitted under the laws of six states. The state does not maintain the same careful supervision of the

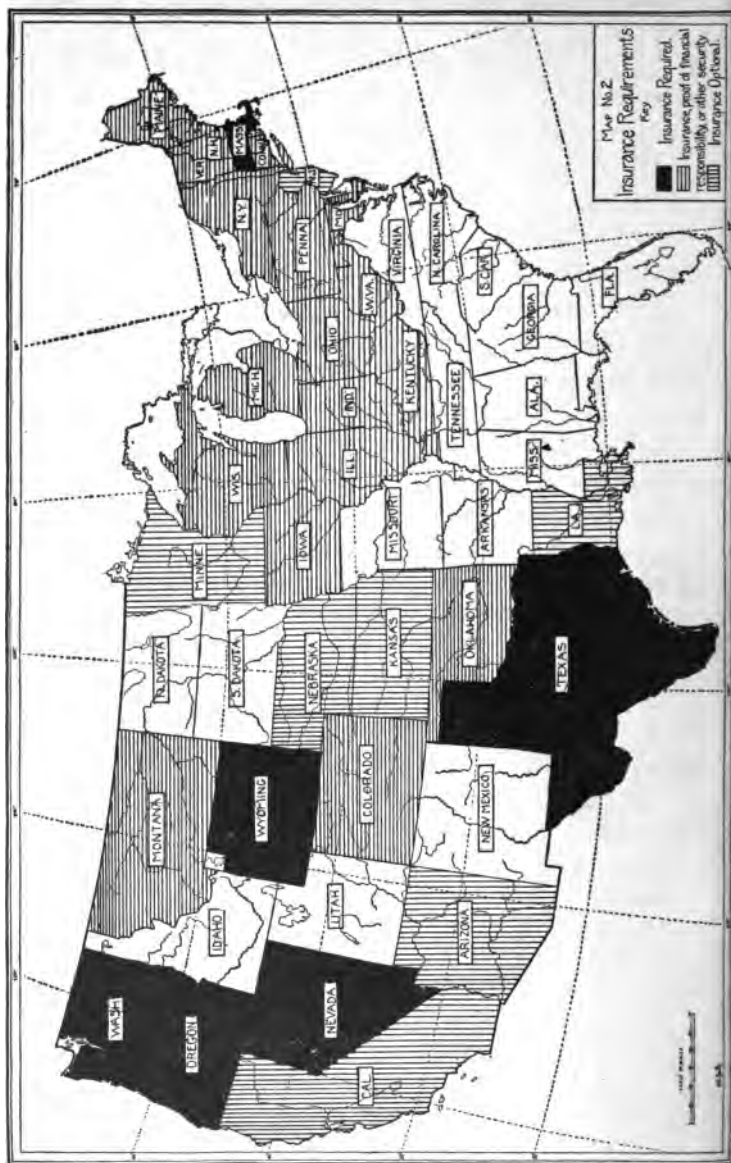
solvency of industrial corporations as of insurance carriers, and the workman, the payment of whose compensation is dependent upon the financial strength of his employer, is left without recourse in the event of bankruptcy. The employer has also a direct interest in reducing the amount of compensation payments and may discriminate against workmen with slight physical defects or who have families. The same interest may result in efforts to avoid the payment of just claims or to secure agreement to inadequate settlements.

Types of Insurance Organizations.—Two general types of organization have engaged in the insurance of employers' liability and workmen's compensation, the *stock company* and the *mutual association*. The two forms differ fundamentally in their objects and in the control of their operation. The stock company is organized by a group of individuals who contribute their capital and control the management of the company. In return, they receive interest on their capital and any profits which the company may make, unless the venture is unsuccessful, when they must share the losses to the extent of their contributions of capital. Mutuels are coöperative organizations of the policyholders whose risks are insured and who control the affairs of the company and share such profits or losses as may result. Employers' liability insurance was first written by stock companies and the greater part of this business has always been carried by them, although two of the mutuels which are now engaged in insuring liability and compensation risks began business under the old liability laws, one of them as early

as 1887. Both of these companies are of the *pure mutual* type. With the spread of workmen's compensation we find a considerable growth in the mutual insurance field and a differentiation of types based on the mutual principle so that now there exist not only the old type of *pure mutuals* but also *mixed mutuals*, *inter-insurance exchanges*, and *state funds*.¹ This last insurance carrier differs from other mutuals in being operated by the state while the first three owe their inception to private initiative and are managed by private individuals for their own ends. They may accordingly be called *private mutuals* to distinguish them from the *state funds*.

Insurance Requirements.—The various states, in enacting compensation laws, have followed diverse principles regarding provision for insurance of the compensation obligation. In eighteen states the requirement is made that the employer insure in a licensed insurance carrier or satisfy the administrative body of his financial ability to carry his own risk—in some of these states the option is granted of insuring or filing a bond. Seven states simply require that the employer make compensation payments as required in the act, permitting him to carry insurance or not

¹ The term *pure mutual* is used to designate a corporate insurance organization managed by salaried officials who are appointed by a board of directors, which in turn is elected by the policyholders. A *mixed mutual* is similar to a stock company in organization but dividends to stockholders are limited, any excess earnings above a fixed percentage being returned to policyholders. An *inter-insurance exchange* is managed by an *attorney-in-fact* who represents each of the members and who receives a percentage of the premium for his services.



as he sees fit. Six make it obligatory on all employers to insure with some recognized carrier, while one provides only for proof of financial responsibility or the filing of an acceptable bond. The accompanying map indicates the provisions in individual states.²

Methods of Insurance Permitted.—While one-half of the states have made no special provision for the insurance of workmen's compensation, leaving the field to existing liability companies and to private initiative in forming new organizations, the remainder have created new agencies for the exclusive purpose of assuming the liability created by their workmen's compensation acts. These new agencies have assumed two forms, the *specially created mutual* which owes its existence to the state but which is operated under private management,³ and the *state fund* which is operated on the mutual plan by state officials. Of these states, seven, including the three which have adopted the specially created but privately managed mutual, permit competition by private companies, while six provide that the state fund shall be the sole carrier of this form of insurance.⁴ Map. No. 3 shows the methods pursued in particular states.⁵

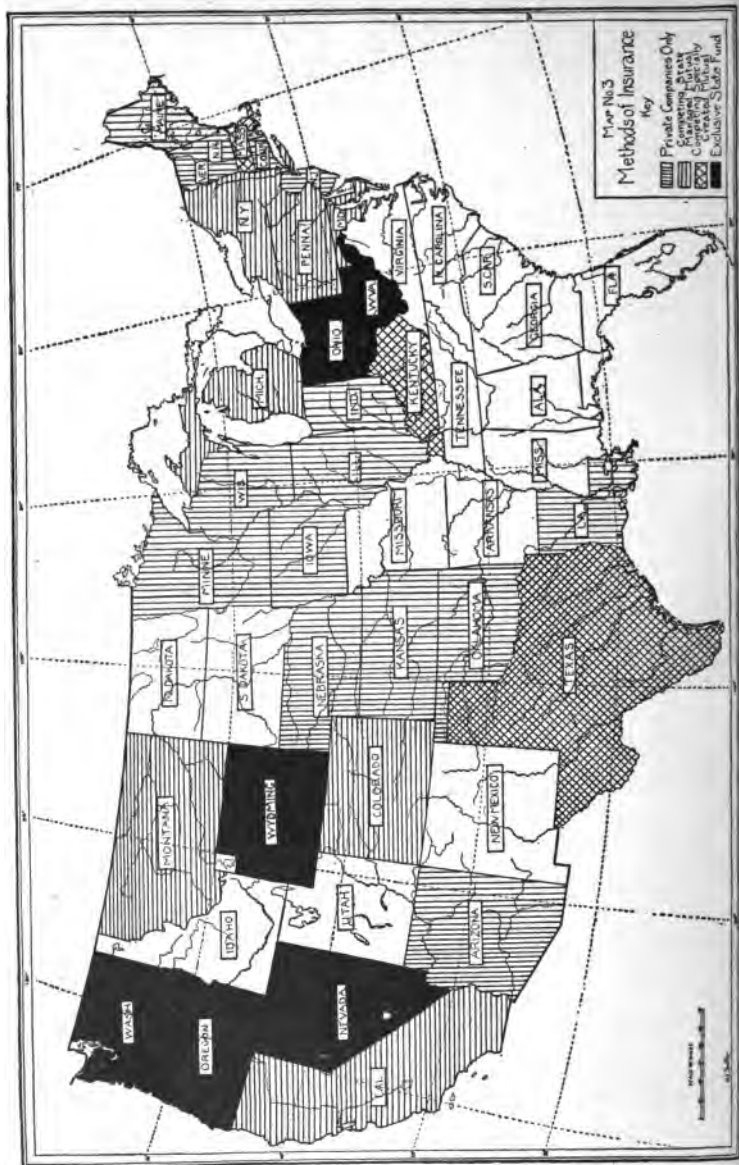
In the following discussion each variety of insur-

² Page 176.

³ In Kentucky the state is represented by three of fifteen directors.

⁴ In Ohio and West Virginia private companies write workmen's compensation insurance by assuming the risk which the employer has first elected to carry himself. It was the evident intention of the laws, however, to exclude private companies from this field.

⁵ Page 178.



ance carrier will be described, its advantages and disadvantages considered, and conclusions presented in so far as experience in this branch of insurance warrants. Since the field of competition between different types of companies is limited almost entirely to compensation insurance and since the same principles and practices apply to both employers' liability and compensation business the statistics and illustrations used will be taken largely from experience under the newer form.

THE STOCK COMPANY

Characteristics.—The principal characteristic of a stock company and the feature from which it takes its name is the issuance of stock as evidence of ownership and in return for capital contributed by the stockholders. This capital, which the law requires the company to keep unimpaired, serves as the basis of operations and, combined with any surplus which the stockholders may have contributed or which may have accumulated in the course of business, represents the financial interest of the stockholders and the financial backing as security for creditors. In consideration of their services in advancing capital the stockholders become the owners of the company and as such are entitled to a pro-rata participation in the payment of dividends. The management of the company is supervised by the board of directors who are elected by the stockholders, and is in active charge of salaried officials, appointed by the board to operate the company in the interests of the stockholders.

It is the practice of stock companies to charge a

definite premium to the policyholder for the risk assumed. If losses and expenses exceed the amount of premiums collected the company must bear the extra burden; if premiums are more than sufficient to meet losses and expenses, the excess is held as surplus or distributed in the form of dividends.

History and Present Position of Stock Companies.

—Before workmen's compensation was adopted in the United States the business of insuring employers against liability for accidents to their employees was carried on almost wholly by stock companies, only a very small proportion of the total business being carried by mutuals. With the advent of compensation the proportions have changed and, while the stock companies still carry about eighty-five per cent of the business written by private companies, there has been great activity in the organization of mutuals during the last five years. The state funds have also written a considerable amount of compensation insurance, although the stock companies continue to command a major share of the premiums in states where competition is permitted, receiving, during 1915, compensation premiums amounting to \$31,348,758.

Of the premiums collected, an average of about forty per cent is required to meet the expenses of conducting the business, the remainder being devoted to the payment of losses, including allowance for reserves.⁶ Any amount still remaining after the payment of losses is considered as underwriting profit and may be carried to surplus or paid out in the form

⁶ See Chap. XXI.

of dividends. If losses total more than the proportion of the premium which is allotted to them the deficit, or underwriting loss, must be met out of other funds.⁷

Arguments for Insurance in Stock Companies.—1.

Undoubtedly the advantage of insurance in stock companies which has greatest weight is the definiteness of the transaction. By the payment of a known percentage of his payroll the insured is guaranteed complete protection against loss, regardless of the adequacy of the premiums collected. Of course, if the insurance company has insufficient assets to meet the payment of losses the policyholder is not fully protected, but careful regulation by state officials and high legal standards of solvency reduce the danger of this event to a minimum. The insured may well feel that a contract with a reliable stock company relieves him of all necessity for worry regarding liability for injuries to his employees.

2. The security offered by a stock company is enhanced by the capital fund which it is required to hold and which is available for the satisfaction of claims if other sources fail. The amount of this capital is carefully regulated by state law and it must be kept unimpaired if the company is to continue in business. A further security lies in the business interests of the owners of the company who have contributed capital in the expectation of receiving dividends. Since dividends cannot be paid until all losses and expenses have

⁷ It should be remembered that receipts from investment income and accretions may provide the company with sufficient funds to more than offset an underwriting loss.

been met, there is constant pressure on the management to collect sufficient premiums to provide for profits and to keep the company in a prosperous condition.

3. Another argument frequently advanced in favor of stock company insurance is based on the experience in the business accumulated through many years of liability underwriting. It should be remembered that experience in compensation insurance is necessarily limited to the five years during which there has been occasion for it. Therefore claims of greater efficiency and stability because of experience must rest on the analogy between the practice of liability and of compensation insurance, and on the presumption that, in general, the older business organization justifies the greater confidence. It is also to be noted that this field of insurance has been developed recently, only eleven of the twenty-seven domestic stock companies now operating⁸ having been organized prior to 1900. The following table indicates developments along this line:—

Date of Organization	No. of Companies
1863-1869 inclusive.....	2
1870-1879 "	1
1880-1889 "	1
1890-1899 "	7
1900-1904 "	3
1905-1909 "	6

⁸ Dec. 31, 1915 (as listed in the *Insurance Year Book for 1916*. Except where otherwise noted further figures used in this chapter will be from the same source). Six foreign companies also transact this business through United States branches.

Date of Organization	No. of Companies
1910-1914, inclusive.....	6
1915	1
	<hr/>
Total	27

4. The extensive territory over which a stock company usually does business gives it a wide exposure and promotes diversification of risk, two factors which make for more accurate operation of averages and hence contribute to the stability and efficiency of the corporation by reducing fluctuations in disbursements.

Arguments against Insurance in Stock Companies.

—The objections to stock company insurance arise both from the fundamental purpose of stock organizations and from the methods in general use among them which express themselves in the form of a higher net premium cost to the policyholder.

1. The stock company is, of course, operated in the interests of the stockholders and their desire is to secure as large a net profit as possible. This profit must be contributed by the insured in the form of premiums. Although the extra cost entailed by profit-taking may be offset by superior service or by economies in other directions, it must, in itself, be considered a disadvantage.

2. Another item which contributes to a larger premium is that of acquisition expense, which consumes 17.5% of the premium and which is due to the general practice of soliciting risks through agents and brokers who receive commissions in proportion to premiums written. This element of cost may be justi-

fied provided the agent or broker serves the insured properly by advising him in the choice of a company and the reduction of hazard, and provided he exercises discretion in choosing risks for the company. At present such services are somewhat in the realm of the ideal.

3. It is argued that the very extent of a stock company's business is a disadvantage. It forces the company to act through agents who are not in close personal touch with the home office and tends to prevent careful supervision of risks. Such supervision as is exercised involves considerable cost because of the distances involved. These conditions might occasion a larger loss ratio, larger expenses of management, or both.

THE MUTUAL

Characteristics.—The mutual insurance organization is an association made up of policyholders for the purpose of assuming their individual risks. It differs from the stock company in the fundamentals of its organization, since the policyholders control the management and are the owners, each policyholder's participation being measured by the size of his premium. The nature of mutual insurance may be most clearly explained by the statement that the insured transfers his risk to an organization of which he is a member. In view of his membership he is entitled to any profits which may accrue and must contribute to the payment of any obligations which the company finds itself unable to meet from premiums. Policyholders receive profits and pay assessments in proportion to the

amount of premiums which they pay, but liability for assessments is usually limited to an amount equal to the original premium.

Mutuals are often limited along geographical or trade lines, being organized to write insurance in a single state, or in a single industry or group of industries, often those of a non-hazardous nature. Where such limitations obtain a company represents more of the coöperative spirit, and relations among its members are more personal. Some mutuals, however, resemble the stock companies in the extent of their business and the impersonal methods of their management. The advantages of mutual organization are most evident in connection with a preferred class of risks and it is among employers whose establishments are in the low hazard classifications that it has been most developed.

History and Present Position.—Of the forty-three mutual companies doing business December 31, 1915, only three were organized prior to 1912 and only two date from the employers' liability period.⁹ The enactment of workmen's compensation laws has given a great impetus to the formation of mutuals for the purpose of securing compensation insurance at a lower cost, and nearly all such companies now in operation are devoted to this line.

Mutuals, at present, write but a small proportion of the total of compensation insurance and their future position must remain a matter of conjecture until more experience has developed. It is evident from the or-

⁹ One of these was organized in 1887, the other in 1907.

ganizing activity of the past, or years that the mutual idea will be thoroughly tried out.

Arguments for Mutual Insurance.—1. The object and chief advantage of mutuals is the furnishing of insurance at a lower cost than in stock companies. This object has been attained in the past because of certain features of the mutual which make for economy. In the first place the acquisition expense is considerably lower, as mutuals make a practice of paying no commissions and effect a saving in this item of from ten to fifteen per cent of the premium. Secondly, the item of profit is entirely eliminated by the very nature of the mutual plan.

2. The policyholders, through their membership in the company, have control of its affairs through their right to vote at meetings and to elect directors, who are usually large policy holders and who are, therefore, directly interested in efficient management.

3. If the risks are limited to a given locality or to certain trades the mutual has the advantage of being able to keep them under close supervision at a minimum of expense and to enforce standards which will result in a low loss ratio. It is too early as yet to prophesy to what extent advantage will be taken of this opportunity but the example of the Factory Mutuals in fire insurance furnishes evidence of its possibilities.

4. Mutual insurance offers an opportunity for the combination of a selected group of risks in order to secure the benefits of a favorable loss experience. By careful restriction of the risks which will be accepted a considerable saving may be made.

Arguments against Mutual Insurance.—1. The taking out of a policy in a mutual company compels the insured to assume his share of the risk entailed by entrance into the insurance business. He becomes liable for assessment, usually to the amount of the original premium, in case the company's funds are insufficient to meet its obligations. This risk is particularly evident in the liability and compensation insurance business because of its comparative youth, the lack of reliable fundamental statistics, and the long period over which the payment of losses extends.

2. Not only is this branch of insurance a comparatively new field but the mutual organizations engaged in it have had, with two exceptions, a rather limited experience, most of them having been brought together during the last four years. This disadvantage is somewhat offset where a mutual engages executives who have previously been in the same line of work.

3. The small size of most mutuals makes less certain the operation of averages. The exposure is limited in extent and diversification and a heavy loss in any one risk or locality may make an undue showing in the loss ratio.

4. The security offered by a mutual lacks the capital fund which is possessed by the stock companies and, if young, the large surplus accumulation also.

5. There is some danger that the managers of a mutual will, in their desire to make a good showing, declare unwarranted dividends to policyholders and thereby reduce the surplus to a point where it may be insufficient to meet emergencies.

CHAPTER XV

METHODS OF INSURANCE (*Continued*)

THE STATE FUNDS

Characteristics.—The state fund is a mutual plan for the insurance of workmen's compensation, differing from private mutuals in three particulars: first, it is created by a special act of the legislature; second, it is managed by state officials; third, it is often granted certain assistance, privileges, or immunities, by the state.¹ In all cases the state fund is created by legislative enactment which is an integral part of a workmen's compensation act or supplementary thereto, and it is usually provided that the same body which has charge of the administration of other features of the compensation legislation shall also manage the fund. In two states, however, a special body has been created to take charge of the management.

The employer who insures his risk in a state fund pays a prescribed premium in return for which he is, in nine states, relieved of liability for future assessments and for payments to injured workmen.² In

¹ No state guarantees the solvency of its fund—the state fund is an example of *state-managed insurance* rather than of *state insurance*.

² Where insurance in the state fund is compulsory an increase in rates may be equivalent to an assessment to cover liabilities created in the past.

four states the policyholder is in practically the same position as to additional liability as he would be were he insured in a private mutual, i. e., he is required either to pay his share of any liabilities which the fund is unable to meet or to pay to his employees any compensation to which they are entitled but which they are unable to recover from the fund. In all states the employer is entitled to his share of any profit which the fund may make—this may be returned to him in the form of dividends, reduced rates, or exemption from the payment of premium for a certain period.

In states where private companies are permitted to compete with the fund the gross rates of the latter are lower than those of the companies, with the exception of California, where the same rates are enforced for all insurance carriers. The rates of two of the funds represent a horizontal reduction of ten per cent, and of two others, five and fifteen per cent, respectively, from the stock company rates on similar classifications. In eight states it is provided that the administrative expenses of the funds shall be paid by the state, in one of which, Pennsylvania, the state subsidy is to cease on July 1, 1919. In New York the expenses of the fund were paid by the state up to July 1, 1916—since that time the fund has been required to support itself. In Nevada the state provides offices and does the printing for the fund, while in Oregon an amount equal to one-seventh of the combined payments of employers and employees is contributed by the state. Wyoming, in addition to paying expenses, appropriated \$30,000 as a nucleus for

the fund and appropriates each year a sum equal to one-quarter of the total payments of employers. The California fund holds a state appropriation of \$100,000 as a catastrophe reserve.

In California, Michigan, and Pennsylvania the rates and reserves of the funds are under the supervision of the state insurance department. Other states leave these matters entirely to the discretion of the managers of their funds, with the exception of New York, where the insurance commissioner supervises the reserves.

In all but three states a catastrophe reserve is maintained, usually in accordance with statutory provisions; for example, Maryland requires that ten per cent of the premium income shall be set aside until \$50,000 is accumulated, and that thereafter five per cent shall be set aside until there is a sufficient amount to care for the catastrophe hazard.

The expense ratio of the state funds is unusually low, averaging approximately twelve and one-half per cent of premiums. This is partially accounted for by the fact that, like mutuals, the acquisition expense is small, no commissions being paid.

History and Extent of Business.—The first state fund to be established in the United States was created by the workmen's compensation act of the state of Washington, which went into effect in 1911. Since that time twelve other states have adopted this method of insurance, the youngest of the funds being that of Pennsylvania, which commenced operations January 1, 1916. In the following table is shown the growth of the state fund principle:

STATE FUNDS IN THE UNITED STATES

Date of establishment.....	1911	1912	1913	1914	1915	1916
Funds established during the year.....	1	2	2	5	2	1
Total in operation.....	1	3	5	10	12	13
States in which established	Wash.	Mich. Ohio	Nev. W. Va.	Cal. Md. N. Y. Ore. Wyo.	Colo. Mont.	Pa.

State funds received \$7,600,000 in premiums during the year 1915. They write insurance, of course, only within the borders of their respective states, carrying the entire business of the five states where they have a monopoly, and the greater part of the business of Ohio and West Virginia, where an employer may insure in a private company after securing permission to carry his own risk. Figures from the seven states which have competitive funds indicate that these receive from one-tenth to one-third of the total premiums.

Arguments in Favor of State Funds—1. The premium rates, which are often lower than those of other carriers, may be lowered still further by the payment of dividends, since the funds are operated on the mutual plan. Where the state pays expenses of administration or contributes a subsidy the employer may be benefited by the consequent reduction in the amount of his own contributions.

2. In those states which provide that insurance in the state fund shall relieve the employer of all liability for payments to his injured workmen, for the payment of assessments to the fund, or for both, he is given absolute security in return for his premium.

3. The state fund, managed in all cases by public officials, and usually by the same body which admin-

isters the compensation law, may be operated to carry out the fundamental purposes of compensation legislation, conserving impartially the interests of the employer, of the employee, and of the general public.

4. A monopolistic state fund, by the concentration of the entire compensation insurance business of a state, promotes uniformity in the treatment of employers and employees and eliminates the waste due to competitive expenses and duplication of equipment and organization.

5. A competitive state fund may, through its rates and service, act as a regulatory agency, compelling private companies to adhere to fair rates and practices.

6. The state fund is as carefully regulated as private companies in some states and might be so regulated in all.

7. Such criticism of the state funds as is tenable is directed, not at the principle, but at the methods which have been followed in applying it. State fund insurance, since it is a new venture in the United States, must pass through a period of development and experimentation, the cost of which is fully justified by the possible future service to be expected from this plan of insurance.

Arguments against State Funds.—1. The management of the funds is vested in appointive state officials, and politics plays too large a part in their selection. Insufficient salaries, political considerations, and insecure tenure of office all tend to produce the inefficiency which is a characteristic of state-managed institutions.

2. Neither the policyholders nor anyone financially interested in the success of the funds have any direct control over their management.

3. In the event of insolvency as a result of inefficient management or of rates fixed by the legislature the employer will be obliged to make further contributions or, where he is relieved of all liability, the employee will lose a portion of his compensation. If the deficit is made up from the state treasury it will involve a higher tax rate. There is also some question as to whether a statute relieving the employer of all liability on the payment of a stated premium would be held constitutional by the courts.

4. The payment of expenses by the state gives the fund an unfair advantage in competition with private companies which must meet all expenses from premium receipts.

5. The state fund is not in a position to reject poor risks and is forced to accept many which private companies are unwilling to carry.

6. The practice of fixing rates by legislative enactment, which obtains in some states, is unscientific and impractical, involving unfairness in the distribution of compensation cost and endangering the solvency of the fund.

7. The state should confine itself to regulation and should not attempt to enter business enterprises which can be conducted by individual initiative.

CONCLUSION

There is the utmost disagreement on the question of the relative desirability of different methods of in-

asuring the compensation obligation. Stock companies, private mutuals, and state funds all have their ardent proponents and equally ardent opponents, though the really big issue is between state-managed and privately managed enterprise. The literature which has appeared in support of any one of these forms (and this has generally meant in condemnation of all others) has been too evidently partisan to furnish a satisfactory basis for a decision and has likewise failed to take into consideration the viewpoints of all of the parties in interest. To arrive at any proper conclusion all of these viewpoints must be given their due weight.

In attempting to come to a decision respecting the relative merits of these three methods of insurance it should be remembered that there is being sought an answer to the question—which of these is best adapted to carry out the fundamental purposes of workmen's compensation. Which contributes most to the well-being of employer, of employee, and of society? A judgment of this sort must reflect not only theoretical possibilities but actual experience, for it is often found that unforeseen obstacles prevent the realization of expected advantages, while practical application may develop a means of counteracting objectionable features or disclose the remoteness of feared contingencies. Further, there may be a necessity of compromise between apparently conflicting viewpoints though, in the long run, provision for the welfare of any one class will probably redound to the benefit of all classes.

Before proceeding further the criteria to be applied to any given scheme must be determined. These

criteria should represent the viewpoints of the three great classes which are directly concerned in the decision and can best be stated in terms of their respective interests. The method of insurance which most fully satisfies all of these, always having proper regard for the relative importance of each, should be considered most worthy of adoption. All three classes, employer, employee, and society, are interested in the elimination of litigation and in the prevention of accidents. Society and the employer are interested in effecting insurance at the lowest possible cost, while both employer and employee demand a method of insurance which will furnish the greatest security and promote amicable relations between labor and capital. Lastly, the workman is peculiarly interested in securing a fair adjustment of his claims for compensation and in receiving prompt relief in case of injury.

Conclusions from Experience.—Whatever may be one's judgment on *a priori* grounds, it may be safely stated that the practice of workmen's compensation insurance in the United States has not demonstrated the superiority of any one form of carrier. Defects and advantages have developed in each method but in no case have they been essential. Stock companies and mutual companies have been forced to liquidate and state funds have been unable to meet their obligations in certain hazardous classifications. Yet these failures have meant inefficient management or improperly drafted laws, both of which can be corrected. In the majority of cases private and state institutions alike have met the financial obligations imposed upon them.

Nor does the study of financial statements and of records of loss expense and dividend ratios yield conclusive material. Out of premiums received during the past five years reserves have been set up from which payments must be made for an indefinite future period. Whether these reserves are adequate is not definitely known, but on their adequacy depends in considerable measure the future financial status of the insurance carriers. It is evident, of course, that the carrier which has devoted the largest relative amount of money to reserves and surplus is, as regards those items, in the strongest financial position; but other carriers will argue that their reserves and surplus are adequate and that a larger amount only means an excessive premium charge.

It should be borne in mind also that ratios of loss, expense, or dividends mean little unless interpreted in the light of all the facts. A high loss ratio may mean adequate reserves, excessive reserves, poor risks, or lavish loss settlements; a low loss ratio may mean inadequate reserves, careful selection of risks, an efficient claim department, or extraordinary good fortune. A high expense ratio may be the result of inefficient management, careful provision for the future, or unusually good service to policyholders; a low expense ratio, the result of efficient management, unwise retrenchments, or inferior service. Similarly, large dividends may reflect real savings or speculative management; low dividends, a policy of thoroughgoing preparation for the future or managerial incompetence. These forces and others lie back of the bare figures and it is especially important to consider them

until sufficient experience has developed to enable more accurate conclusions to be drawn from simple ratios. Ratios, unless viewed in the light of the causes which have produced them, are never conclusive; they are least valuable when they are the result of limited experience.

The Future.—Owing to the inconclusiveness of available experience the question of what provision a compensation law should make for insurance is a mooted one and there is little probability of final answer in the near future. It is well that diverse experiments are being carried on, for they will gradually furnish material on which to base sound legislation. There is undoubtedly much cogency in the argument for competition, partly because it gives employers with varying types of mind and in varying industries an opportunity to select their insurance carriers, and partly because it tests out the different principles, one against the other. Against many present *methods* of competition, however, too much cannot be said; they savor of the political campaign and stress partisan conclusions rather than scientific evidence. Many broad statements have been made with small statistical backing and many generalizations have been drawn from preconceived ideas rather than from comprehensive data.

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CHAPTER XVI

THE POLICY CONTRACT¹

GENERAL PRINCIPLES

A Contract of Indemnity.—The relationship between insurer and insured is governed by the terms of the insurance policy and by the principles of law applicable to its interpretation. Basically, the policy is a contract of indemnity—a promise by the insurer, in consideration of a premium payment, to indemnify the insured for loss arising from certain specified events. From the principle of indemnity it follows that an insurable interest is prerequisite to a valid contract of insurance. Insurable interest is “every interest in property or in relation thereto or liability in respect thereof, of such a nature that a contemplated peril may directly damage the insured.”²

Although the agreement is *aleatory* or speculative in one sense, that is, the parties may not know whether the event insured against will occur or not, and in return for a comparatively small sum of money the one party

¹ In this chapter the essential and peculiar features of the contract are considered. For more complete information the reader is referred to the form of contract contained in Appendix B and to the text books on insurance law. Thorough study of the provisions of the contract form is advised.

² *Elliott on Insurance*, p. 40.

assumes the risk of incurring liability to a much greater amount, nevertheless, compensation for a real loss, rather than a purely speculative venture, must be the aim and object, and consequently the party insured must be able to show an insurable interest in the subject of insurance, an interest of a material and valuable character, and not merely moral and sentimental, or else the contract will be altogether void. The doctrines of indemnity and of the necessity of an insurable interest are correlative and complementary in all branches of the law of insurance.³

The rule requiring an insurable interest to give support to the contract exists in this country irrespective of statutory provisions, and everywhere is grounded upon important considerations of public policy. Without it the contract would be a wager, and a wager policy is more to be condemned than an ordinary wager, since it is not only at variance with sound business ethics, but it also offers peculiar inducements to the assured to bring about fraudulently the event insured against.⁴

A Personal Contract.—The insurance policy is a personal contract binding only as between the original policyholder and the insurer, unless the latter consents to an assignment.⁵ The risk assumed by the insurer is conditioned in large degree by the character and habits of the insured through his supervision of the operations covered by the contract. To allow assignment without permission would be unjust since it might involve an increased moral hazard. In liability and compensation insurance the moral hazard is deter-

³ *Richards on Insurance*, pp. 28-9.

⁴ *Richards, op. cit.*, p. 32.

⁵ The life insurance policy is an exception to this general rule.

mined by relative attention to the prevention of industrial accidents and to care for injured employees.

Rules of Construction.—Two rules followed by the courts in the construction of contract provisions are particularly important; the rules that the insured is to receive the benefit of any doubt, and that endorsements take precedence over the original terms of the contract. The first of these was adopted on the theory that the insurer, who had drawn up the contract, should be responsible for the elimination of ambiguity and should not be allowed to take advantage of the policyholder by the use of equivocal expressions. Doubtless the unfair practices of some of the earlier companies in inserting provisions in their policies for the express purpose of avoiding liability on technical grounds had much to do with the attitude of the courts.

The rule that endorsements which disagree with the terms of the original contract shall control is an application of the familiar principle of contract law that, in event of conflicting agreements, the latest meeting of the minds shall govern. An endorsement is assumed to be of later date than the policy itself.

EMPLOYERS' LIABILITY CONTRACT

The Obligation Assumed.—The employers' liability contract is in no sense an agreement to provide compensation to injured employees; its sole purpose is to relieve the employer of the financial consequences of injuries received by his workmen. But it is more than a contract to reimburse the employer for actual loss incurred, it is also a contract of service. The insurer

agrees to assume the losses due to legal liability of the employer on account of accidental bodily injuries to his employees, to investigate such accidents and adjust resultant claims, to defend damage suits whether groundless or not, and to pay court costs and other expenses arising out of injuries and claims. Indemnity for loss on account of legal liability for damages is limited to a certain sum for one injured person, and the total indemnity payable for one accident is likewise limited. The "standard limits" are \$5,000 and \$10,000; other limits involve an adjustment of premium to reflect the changed hazard.

The policy covers all employees of the insured whose compensation is stated, with the usual exception of children employed in violation of an age law ("or under the age of fourteen years if there is no legal age limit") and of convict labor. Injuries resulting from the business operations of the insured are covered, including ordinary repairs; but extraordinary repairs, alterations, and construction work may be included only under a special classification or endorsement. Injuries occurring on the premises of the insured or on those immediately adjoining, or in other places if the injured is a driver or driver's helper, are always covered; and some policies include other specified classes of employees wherever they may be, or make no restrictions as to location.

Premium Computation.—The premium paid by the employer is based on the total remuneration received by his employees during the policy period. An estimate of the payroll is furnished to the insurer in the application for insurance as a basis for the payment of

an advance premium. At the end of the period the premium is adjusted to the actual payroll, the employer paying an additional charge if the actual is greater than the estimated and the insurer returning a proportionate amount if the estimated payroll is greater. In all cases the insurer is entitled to a minimum premium named in the policy. The insurer has the right to examine the books of the insured at any reasonable time while the policy is in force and within one year after its termination for the purpose of determining the actual remuneration paid.

Inspection.—The right is reserved to inspect the place of business of the insured while the policy is in force in order to suggest means of accident prevention and to learn of changes of hazard.

Cancellation.—The contract may be cancelled by notice to either party stating the date thereafter when cancellation is to become effective. If the insured cancels the policy and is retiring from the business described in the policy or if the insurer cancels, a *pro rata* premium for the period during which the policy has been in force is retained by the insurer. If the insured cancels and is not retiring from business, a *short rate* premium, an amount somewhat larger than the *pro rata* and never less than the minimum premium, is retained. Provision for short rates is justified by the fixed charges connected with the handling of all policies.

Notices.—The insured is required to give immediate written notice to the insurer of all accidents which occur, of all claims made, and of all suits brought, and must forward all papers served upon him. He must

also give full particulars and aid the insurer in every way, but is not allowed to assume liability nor to give assistance other than "first aid" without written permission from the insurer. Fulfillment of these requirements demands a "reasonable" compliance with their terms—the courts will not allow the insurer to escape liability on purely technical grounds.

Warranties.—Certain statements made by the insured and incorporated in the contract are declared to be warranties except where it is specifically stated that they are estimates.⁶ Under the legal definition of a warranty proof that any such statement is not literally true causes avoidance of the contract. Most states now have laws, however, which provide that all statements in a policy shall be regarded as representations, even though they appear in the form of warranties. In the absence of fraud it is necessary to prove that a representation is both material and untrue in order to void the contract. To be material a statement must be such as would affect the acceptance of the risk or the amount of the premium.

Miscellaneous.—Other clauses are usually inserted providing that no assignment shall be valid without the written consent of the insurer; that if insurance is carried with other carriers, liability for payment of claims shall be limited to the same proportion of the claim as the sum insured under the terms of the particular policy bears to the total insurance carried; that the insurer shall be subrogated to the rights of the insured to recover damages from third parties;

* See "Declarations" in policy form, Appendix C.

that changes shall not be made except by endorsement signed by certain officers of the company; and that state statutes dealing with the serving of notices or the institution of legal proceedings supersede policy provisions which are inconsistent with them. Such provisions are common to many forms of insurance and have no peculiar significance in liability insurance.

WORKMEN'S COMPENSATION CONTRACT

The Obligation Assumed.—The workmen's compensation insurance contract differs fundamentally from the employers' liability contract. It is an agreement made with the employer to pay indemnity to his workmen or to their dependents according to the terms of a compensation act which is considered a part of the policy contract. All employees whose remuneration is declared by the employer are covered and there are no limitations on the amount payable or the locations covered, other than those expressed in the statute. Such an agreement is usually required by state law, but it is the practice of insurers to write all contracts on much the same basis, some having standardized contracts which are used in all states, the compensation law of a particular state being cited by endorsement.

Provision similar to that contained in the employers' liability contract is made for service to the insured, for defense of suits, and for payment of expenses, with the addition of specific agreements to suggest means of accident prevention to the employer,

and to furnish medical and surgical aid and supplies, or pay funeral expenses as required in the law.

Premium Adjustment.—An advance premium is paid on the estimated payroll which is adjusted to actual payroll at the end of the policy period. Clauses are often inserted to provide for changes in manual rates, for schedule and experience rating modifications, and for an adjustment of rates to conform to a change in the hazard due to court decisions holding the compensation law unconstitutional in whole or in part.

Notice.—That notice of the occurrence of an accident to the insured employer shall be considered notice to the insurer is required by the laws of many states and is accordingly a contract provision in those states.

Cancellation.—Cancellation may be effected by either party on ten days' notice in most states, though a longer notice is required in some. Four states require that notice of cancellation must be sent to the administrative body.

In other respects the compensation contract is similar to the liability form.

Approval of the Contract.—Certain states⁷ require that forms of contract must be submitted to a state official for approval and in some other states policy forms are regulated under the power of the administrative officials to reject an unsatisfactory form as being unacceptable as evidence of insurance.

The differences between the employers' liability and

⁷ Connecticut, Indiana, Kentucky, Louisiana, Maryland, and Massachusetts. New York and Maryland prescribe standard policy forms to be used by all insurers.

the workmen's compensation contract are expressive of the relative status of the insurance carrier under the two régimes. Under the old system of employers' liability the carrier existed merely as a convenient business device through which an employer might protect himself from the danger of heavy losses in damages to workmen and to which he could shift the trouble and expense of handling claims. The interests of employees were not considered.

Workmen's compensation being primarily for the benefit of the employee, it is essential that emphasis be placed on security and fairness of payment to him. The insurance carrier is now an important administrative unit engaged in carrying out the broad social purposes of the law as well as a necessary protection and agent of the employer.

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CHAPTER XVII

MANUAL PREMIUM RATES

The premium, in insurance, is the price which the insurance carrier receives for assuming risk and for rendering services incidental thereto. An ideal premium rate is an exact measure of the risk assumed, plus a proportionate part of the expenses of conducting the insurance business, and is levied on the basis of a unit of exposure to the risk. In employers' liability and compensation insurance the unit of exposure is one hundred dollars of yearly payroll and the premium to be paid by any given employer is as many times the quoted rate as one hundred dollars is contained in his yearly payroll.

Employers' Liability Rates.—In quoting rates for employers' liability insurance the companies have been hampered by a lack of statistical experience and by unregulated competition. These rates have reflected relative hazard between states, industries, and plants only in a very general way. Such experience as has been accumulated has been of small value because of the fluctuating nature of the hazard, and rates have been quoted largely on the basis of "underwriting judgment," a method which involves too much of the human element to be entirely trustworthy. Rates have been further influenced by the practical necessity of

"getting the business" and have frequently been cut to unremunerative levels in order to hold risks against competition. Such practices necessarily mean unreasonably profitable business elsewhere, or insolvency, and they increase the discrepancy between actual and ideal rates. Attempted coöperation to maintain adequate and just rates has failed and opportunistic methods have been generally recognized by the insurance carriers as unavoidable.

Altogether, the insurance of employers' liability has never been on a scientific basis and, while it has rested fundamentally on the probability concept, the application of the theory to the insurer's entire group of risks has been inexact and, to the individual risk, extremely rough.

WORKMEN'S COMPENSATION RATES

History.—When workmen's compensation insurance was first written in the United States it was necessary to quote rates on a new hazard which could not be measured by past experience. Use was made of every possible source of data which would shed light on the problem; labor statistics, experience from employers' liability and workmen's collective insurance in the United States, and figures from foreign countries were studied. The study of all of these, combined with a liberal measure of underwriting judgment, produced a result which was far from satisfactory. The first rates were pitched too high and successive reductions were made to bring them to a level which should be less burdensome to the insured,

while still providing adequate income for the insurer. Adjustment of rates to industries and to particular risks has been and still is a problem. Rates on certain classifications have proved grossly inadequate and on others far too liberal to the insurer.

The Importance of the Rate.—The quotation of proper rates is the most important and most perplexing problem which the insuring organization must meet. On the adequacy of rates in general depends the income of the insurer. They must be sufficiently productive in the aggregate to cover legitimate disbursements and build up a comfortable surplus—otherwise the organization is unsuccessful and sometimes insolvent. It is likewise important to the insured and to his employees that rates be adequate. If the insurer, because of insufficient income, is unable to pay compensation in full, either the employer must make up the balance or the employee will be deprived of assistance to which he is entitled. Although the employer is interested in keeping rates at a level which will enable the insurer to furnish ample security, it is to his disadvantage if they are set above that point, for such a condition would involve excessive insurance cost and undue profit for the insurer.

Even though the general level of rates may be such as to produce an adequate but not unreasonable income for the insurer there may be injustice between classifications and between employers within the same classification. In the interests of justice each employer should contribute to the general fund an amount proportioned to the hazard of his particular plant.

The Task of Rate-making.—Rate-making to meet

these requirements calls for the coöperation of statisticians, actuaries, engineers, and (in decreasing emphasis) underwriters. Statisticians collect and arrange data of past experience; actuaries, with past experience as a guide, construct new rates for the future; engineers assist in measuring mechanical and structural hazards; while underwriters lend their judgment in the quotation of rates for which no accurate mathematical basis is available.

Kinds of Rates.—This work results in three kinds of rates: the *manual rate*, applying to a given industry and state; the *schedule rate*, a modification of the manual rate to conform to visible conditions in a given plant; and the *experience rate*, a modification of the manual rate based on the loss experience of a particular risk. Schedule and experience rates are frequently referred to as “merit rates.”

MANUAL RATES

Definition.—Manual rates are those rates which appear in the rate manual and which are supposed to represent the average insurance cost per one hundred dollars of yearly payroll for given classifications of industry.

Use of Manual.—Suppose it is desired to find the rate for a plant located in Illinois and manufacturing wooden boxes from shooks supplied by another plant. Turning to page 65 of the manual it is found that the compensation rate symbol for “Box Mfg.—wood—assembling only” is CP. The actual rate is then found by reference to the Illinois table of values for

compensation rate symbols on which CP is assigned a value of \$2.70. Assuming that the manufacturer owning this plant has an annual payroll of \$100,000 he would be required to pay a total premium of \$2,700. If, however, his annual payroll were only \$500 the premium charge would be \$25, the amount of the minimum premium which the insurer will accept for compensation coverage.¹

The Component Parts of a Manual Rate.—The manual rate is made up of three parts, expected loss cost, allowance for expenses, and profit.

The accurate computation of loss cost presents great difficulties, for this item is made up of several subordinate items and varies not only between classifications but between states, and the hazards involved are as yet imperfectly known. Statistics of losses under compensation policies have been accumulating since 1911, but it is only recently that they have been systematically and carefully collected. Even if there were complete and accurate statistics the changing nature of the hazard would present difficulties. The payments which must be made under compensation policies are dependent on the law under which they are made, on the interpretation of the law by an administrative body, on methods of production, and on the intensity of industrial activity. Scientific considera-

¹ A sample page from the manual is reproduced on page 213, and the table of values for Illinois on page 214. Certain of the state funds issue rate manuals of their own but the type described here is used in writing the greater part of the business in the United States. The numerals 1 to 10 under the heading "M. P.—Comp." indicate minimum premiums varying from \$10 to \$250.

Classification	No.	Comp.	P.L.	Teams	M.P. Comp
Bolt and Nut Mfg.—excluding steel mfg.; excluding rolling mill operations.....	3132	CA	ZA	R	3
Bone and Ivory Turning.....	4481	BH	ZA	R	3
Bonnet Frame Mfg.—no wire mfg.	2533	AW	Z	R	3
Bookbinding.....	4307	AW	Z	R	3
Boot and Shoe Machinery Mfg....	3558	BO	ZA	P	3
Boot and Shoe Mfg.....	2660	BA	Z	R	3
Boot and Shoe Pattern Mfg.—(not available for division of payroll) .	2792	AW	ZA	R	3
Boot Blacking and Hat Cleaning Establishments.....	9585	BA	YF	R	2
Borax Mfg.....	4529	CO	ZA	R	5
Bottle Dealers (second hand).....	8212	CH	ZD	O	5
Bottle Mfg.—no automatic blowing machines (not available for division of payroll).....	4111	BE	ZA	R	3
Bottle Mfg.—not otherwise classified	4114	BW	ZA	R	3
Bottling—under pressure.....	2161	DB	ZC	PA	3
Bottling—not under pressure (not available for division of payroll) ..	2165	CG	ZB	PA	3
Bowling Halls:					
*No alcoholic drinks served on the premises.....	9082	CG	YF	R	3
*When alcoholic drinks are served on the premises.....	9083	CG	YH	R	3
Box Mfg.—cigar.....	2766	CC	ZA	R	3
Box Mfg.—folding paper boxes—no paper or paper board mfg.....	4241	CD	ZB	R	3
Box Mfg.—solid paper boxes—no paper or paper board mfg.....	4240	CD	ZB	R	3
Box Mfg.—wood—assembling only	2767	CP	ZA	R	3
Box Mfg.—wood—mfg. shooks and assembling.....	2760	CZ	ZC	R	3
Box Mfg.—wood (wire bound)—no box shooks mfg. (not available for division of payroll)	2765	CP	ZA	R	3

* Additional charge for P. L. of \$5.00 per alley.

ILLINOIS.

SYMBOLS FOR COMP. RATES AND THEIR VALUES.

AA.....	.04	BH.....	.74	CQ.....	2.83	DY.....	11.36
AB.....	.06	BJ.....	.77	CB.....	2.96	DZ.....	11.79
AC.....	.08	BK.....	.81	CS.....	3.10	EA.....	12.36
AD.....	.09	BL.....	.84	CT.....	3.26	EB.....	12.92
AE.....	.11	BM.....	.87	CV.....	3.40	EC.....	13.52
AF.....	.13	BO.....	.91	CW.....	3.56	ED.....	14.19
AG.....	.14	BP.....	.94	CX.....	3.73	EE.....	14.85
AH.....	.16	BQ.....	.97	CY.....	3.89	EF.....	15.55
AJ.....	.18	BR.....	1.04	CZ.....	4.09	EG.....	16.28
AK.....	.19	BS.....	1.07	DA.....	4.29	EH.....	17.04
AL.....	.21	BT.....	1.14	DB.....	4.49	EJ.....	17.84
AM.....	.23	BV.....	1.17	DC.....	4.69	EK.....	18.70
AO.....	.24	BW.....	1.24	DD.....	4.92	EL.....	19.56
AP.....	.26	BX.....	1.30	DE.....	5.16	EM.....	20.49
AQ.....	.28	BY.....	1.37	DF.....	5.39	EO.....	21.46
AR.....	.29	BZ.....	1.44	DG.....	5.65	EP.....	22.49
AS.....	.31	CA.....	1.50	DH.....	5.92	EQ.....	23.55
AT.....	.33	CB.....	1.57	DJ.....	6.19	ER.....	24.64
AV.....	.34	CC.....	1.64	DK.....	6.48	ES.....	25.81
AW.....	.38	CD.....	1.70	DL.....	6.78	ET.....	27.03
AX.....	.41	CE.....	1.80	DM.....	7.11	EV.....	28.33
AY.....	.44	CF.....	1.87	DO.....	7.45	EW.....	29.66
AZ.....	.47	CG.....	1.97	DP.....	7.78	EX.....	31.05
BA.....	.51	CH.....	2.04	DQ.....	8.14	EY.....	32.51
BB.....	.54	CJ.....	2.13	DR.....	8.54	EZ.....	34.04
BC.....	.57	CK.....	2.23	DS.....	8.94		
BD.....	.61	CL.....	2.37	DT.....	9.37		
BE.....	.64	CM.....	2.47	DV.....	9.80		
BF.....	.67	CO.....	2.57	DW.....	10.27		
BG.....	.71	CP.....	2.70	DX.....	10.77		

tion of *all* of these matters is well-nigh impossible.

The computation of rates would be greatly simplified if the contingency insured against were some single definite event such as the occurrence of death. The study of a compensation schedule, with its multitude of conditions, indicates some of the difficulties of predicting the payments necessary under a given law. Loss cost, on the basis of the compensation schedule, may be analyzed as follows:

Medical aid.

Payments to injured (periodical or lump sum)
for dismemberments

for disability of varying duration other than
dismemberments

Last sickness and burial benefits

Payments to dependents (periodical or lump
sum)

based on number of dependents

based on degree of dependency

based merely on existence of dependents.

When it is realized that, in addition to providing for this complicated set of payments, it is often necessary to quote rates without experience under the particular act or, at best, with limited experience, the magnitude of the problem becomes increasingly evident.

The allowance for expenses and profit is more easily determined and presents much less difficulty than does loss cost.

Factors to be Considered in Computing Probable

*Loss Cost.*²—1. Pure Premium: .The pure premium is the loss cost indicated by past experience and is the most important of the factors upon which rests the probable future loss cost. Assuming the same compensation law, accurate records of past loss experience, similar surrounding conditions, and a wide exposure, this figure should vary but little from year to year. Since these assumptions do not hold in most cases, it can serve only as a basis for prediction and not as an actual measure of the future.

A pure premium is expressed in terms of units of "one hundred dollars" of payroll. It is the amount that will be given to injured workmen or their dependents, by reason of accidents occurring during the period which the payroll covers, for each one hundred dollars of payroll expended during that period. For illustration: A yearly payroll is \$1,000,000; minor accidents occur which will give \$10,000 to the injured, and one serious accident occurs which will give \$6,000. The total benefits to the workmen are \$16,000, and the pure premium is \$16,000 divided by (\$1,000,000 divided by \$100) equals \$1.60. Let us assume that the payroll for the next year is \$800,000, that the amount paid for minor accidents is \$8,000, but that no serious accident occurs. The pure premium will be \$8,000 divided by (\$800,000 divided by \$100) equals \$1.

This produces a drop in the pure premium for the second year, under the first, of $37\frac{1}{2}$ per cent. If we now add the payrolls and costs of the two years together we

²The discussion of these factors is based on "The Synthesis of Rates for Workmen's Compensation" by Claude E. Scattergood. The reader is referred to this paper for a more extended treatment.

get a payroll of \$1,800,000; \$18,000 for minor accidents, and \$6,000 for serious accidents. The pure premium now becomes \$24,000 divided by (\$1,800,000 divided by \$100) equals \$1.33+. This is a closer approximation to what the average pure premium will be in the long run, than that of either year alone, because the exposure (payroll) is greater, and the exposure acts as a "flywheel," tending to keep the pure premium from varying. The larger the exposure the smaller the variation in pure premium.³

The following quotation shows the difficulty of securing dependable pure premiums from experience:

The readiness to go by a small volume of experience is one of the peculiar errors of early underwriting in this country. When the Massachusetts Insurance Department compiled and published its famous schedule Z, for 1913, showing the compensation experience for separate classifications, it very wisely decided that below a certain minimum of exposure the experience was not worth presenting. The accepted minimum was very small, only \$500,000, and yet only 134 out of the possible 1,500 were able to pass that test. But such an exposure is hopelessly inadequate to produce even an indication of an accurate rate.

The average pure premium in Massachusetts was some 36 cents. Let us assume that an ordinary fatal accident would cost \$2,400. One fatal accident, therefore, in a certain classification represents a pure premium of 48 cents on half a million of exposure, 24 cents on a million of exposure. One fatal accident, therefore, may double the pure premium in many a class.

³ Scattergood, C. E., "The Synthesis of Rates for Workmen's Compensation," pp. 4-5.

The purely accidental fact that of two fatal accidents in two different classifications, one happened to a married employee, and another to an unattached bachelor, may produce a wide margin between the two costs and two premiums. Only then may we begin to speak of a dependable experience when at least one accident will not seriously disturb the average pure premium. If a certain classification has a pure cost of \$1, then an exposure of \$10,000,000 may be sufficient, because one \$2,000 or \$3,000 loss will not affect the pure premium more than 2 per cent or 3 per cent. But in less hazardous occupations, where the pure premium may be ten or twenty cents, a very much larger exposure will be necessary to produce results that are actuarially dependable. And if that is so, how long will it take some of the smaller states to accumulate such volume of experience? For instance: When will Nebraska be able to determine its pure premium on "suspenders without buckles," or Rhode Island on "butchers' supplies"? And yet rates must be quoted for either, and moreover they must be adequate and equitable.*

To overcome this difficulty classifications whose hazards are considered analogous may be grouped and the experience of one state may be checked against the experience of another which presents similar underlying conditions. But where judgment enters into the computation it cannot be expected that the pure premium will be as accurate as where the exposure is wide enough to give a dependable average.

2. Underestimate of Outstanding Losses :

*Rubinow, I. M., "Scientific Methods of Computing Compensation Rates," pp. 12-13

In compensation insurance, when a loss is incurred, it is not always paid for all at once, but the beneficiary becomes entitled to a series of payments, occurring at regular intervals, together with the cost of his medical and surgical attendance, for the period and limitation allowed by the compensation law. Loss experience as of a given date will consist of at least these four divisions:—

(a) Accidents where the losses have been completely paid.

(b) Accidents where the losses have been paid in part, where portions of the indemnities payable have not yet fallen due, and for which reserves must be maintained.

(c) Accidents happening within the period of the payroll exposure which have not yet been reported or which will, but have not yet, developed into claims.

(d) Accidents considered as completely disposed of, which will be reopened and additional indemnities paid.

The pure premiums must contain not only the losses actually paid, but also the amounts which it is estimated will become payable on accidents occurring within the period considered. When it is considered that some of these payments continue throughout the lifetime of the beneficiary, some for life or until the remarriage of the beneficiary, others for a period of time provided the beneficiary survive the period, and others for a period of time whether the beneficiary survive or not; and when the above conditions are modified by new beneficiaries being found to claim indemnities at the deaths of the original beneficiaries, it may be appreciated what a difficult problem presents itself with regard to cases known to be outstanding losses. In addition to this, an allowance must be estimated for claims not known at the time of valuation of the pure premiums, but which should be included;

and another estimate must be made as to claims, considered settled, which will be reopened.⁵

It has been found in the past that attempts to estimate losses in addition to those already paid under a policy have resulted in large margins of error. Estimates have proved inadequate to the final satisfaction of claims and it is generally agreed that present estimates probably err on the side of insufficiency. The error can be determined only approximately but careful rate-making would necessarily take it into account.

- 3. Increasing Cost of the Act: *A priori* reasoning seems to indicate that as workmen become more familiar with the operation of workmen's compensation acts they will present more claims and the losses will become greater, even though the terms of the act remain unchanged.

Experience in foreign countries and in the United States bears out this conclusion and hence we might logically include in the probable future loss cost an amount to reflect this tendency.

4. Effect of Merit Rating: Schedule and experience rates may be applied to individual enterprises and the difference between the manual rate for the classification and the individual rate is supposed to measure the variation from the average hazard. Correctly applied this would result in increases and decreases which would balance each other so that the average rate for the classification would still be the manual

⁵ Scattergood, C. E., *op. cit.*, p. 8.

rate—provided that improvements in conditions had not reduced the average hazard to a degree lower than that on the basis of which the manual rates were computed. Even granting this last possibility, the effect of merit rating in reducing average rates deserves recognition so long as it continues. The New York Compensation Inspection Rating Board reported a reduction of 15.5 per cent in premiums during the year 1915 as a result of this tendency.⁶

5. Catastrophe Hazard: The possibility of catastrophes or of events which will involve the payment of extraordinarily large sums for losses resulting from a single accident or group of accidents demands special treatment, since catastrophes are of such infrequent occurrence that they do not furnish data for compiling reliable average experience. Any allowance for this factor will necessarily be in the nature of an estimate.

Factors Causing Variation in Loss Cost Between States.—1. Laws: While all compensation acts are based on the same general principle, they are, as has been pointed out in preceding chapters, far from uniform in their schedules of compensation and in their general provisions defining the conditions of liability. Further, a few acts expressly cover, or have been con-

⁶ *New York Journal of Commerce*, January 14, 1916. A recent report (Nov. 23, 1916) of the Pennsylvania Compensation Rating and Inspection Bureau shows a net increase of .106% from original inspections for schedule rating and a net decrease of 4.73% from re-inspections. This decrease might well be justified by the general improvement induced by schedule rating. Reports on merit rating in New York under plans adopted during 1916 indicate a reduction of about four per cent from manual rates.

strued to cover, industrial disease. The insurance companies must take into account these differences, since the provisions of the acts are the principal determinant of loss cost, and any scientific scheme of rates will make allowance for this factor.

2. Accident Frequency: The accident rate varies between states as well as between industries and plants, and will affect the loss cost since a greater number of accidents involves a greater probability of compensation claims and awards.

The Expense and Profit Factors.—To be strictly accurate the amount allowed for expenses should vary between states and between classifications so that each group would have assigned to it the portion of the expenses of carrying on the business for which it is responsible. Likewise an ideally just scheme of rates would exact the same percentage of profit from each group, a percentage which would be only sufficient to induce the insurer to provide facilities for insurance and to increase steadily the efficiency of the insuring organization.

CHAPTER XVIII

MANUAL PREMIUM RATES (*Continued*)

CALCULATION OF MANUAL RATES

The Problem.—The accuracy of insurance rates depends on the exactness with which past experience can be ascertained and on the reliability of ascertained experience as a guide to the future. Compensation rate-makers are handicapped alike by the difficulties of securing experience figures of value and by changing conditions which make these figures of less worth as a guide. When a new compensation act is passed insurers are obliged to quote rates which of necessity are not based on the operation of the particular act; as older acts are amended rates are quoted without exact knowledge of the effect of the amendments. Industrial activity, the attitude of employer and employee, types of machinery, methods for the application of power, and other conditions are in a constant state of flux and all have their effect on the losses under compensation policies.

Even had compensation acts been in force over a long period in all states, each state would lack adequate experience in a large proportion of the fifteen hundred classifications of industry for which rates must be set, for no one state would have sufficient payroll exposure to create dependable averages in all industries.

It is, however, the nature of the losses under compensation policies which does most to render rate-making a difficult problem. The complex schedule of payments of the various acts makes provision for compensation which may be continued for several years, in some cases even to the death of the recipient. All such payments are charged to losses under the policy which covered the risk at the time of the accident. Since the first policies were written in 1911, and the large majority since then, it follows that a large portion of these charges for deferred losses must be in the nature of estimates, subject to the inevitable error which accompanies estimates. The tendency of the error in this case was considered on pages 218-220.

The Machinery of Rate-making.—The efforts which are being made to solve the problem of securing correct premium rates are commensurate with its complexities and difficulties. Individual insuring organizations have created statistical and actuarial departments and are devoting much study to the subject. The stock insurance companies maintain the National Workmen's Compensation Service Bureau, an organization the purposes of which are the gathering of statistics of workmen's compensation insurance, the translating of these statistics into manual rates, and the development of systems of schedule and experience rating. This central bureau has branches in numerous states and its activities extend throughout the country. Certain states¹ have created bureaus for the regulation of rates; manual, schedule, and experience;

¹ California, New York, Massachusetts, and Pennsylvania.

and the approval of rates by the insurance commissioner is required in several instances. Some states determine the rates for their state funds by legislative action, a method which tends to maladjustment.²

Coöperation is absolutely essential to justice in the making of rates and it is particularly desirable that such coöperation embrace all of the parties in interest. Even though much had been accomplished in the various bureaus, it was evident that greater uniformity and accuracy could be attained by a more comprehensive group and, at the suggestion of Insurance Commissioner Hardison of Massachusetts, the Joint Conference on Workmen's Compensation Rates met in New York City during the last months of 1915. At this conference two state rating bureaus were represented by committees of their company members (both mutual and stock); the Workmen's Compensation Service Bureau by a company committee; and five state insurance departments by official delegates.³ Committees were chosen to consider specialized branches of rate-making, and opinion from every angle was brought to bear on rate problems. It is to be hoped that such conferences may become a permanent

² This practice obtains in Montana, Nevada, Oregon, Washington, and Wyoming. In Wyoming the law provides that each employer shall contribute two per cent of his annual pay roll to the Industrial Accident Fund. This disregard of relative hazards is symptomatic of the generally unscientific nature of the Wyoming act.

³ The two state bureaus were those of Massachusetts and New York. The state departments represented were those of California, Maryland, Massachusetts, New York and Pennsylvania. The Industrial Commission of Wisconsin was also represented.

feature of compensation rate-making. The present rate manual owes much to the labors of this conference. To quote from the special report of the New York State Insurance Department, "Taken as a whole, the work of the Conference is a long step forward in the application of scientific rating methods to the business of workmen's compensation insurance."

METHOD OF CALCULATING MANUAL RATES⁴

The several factors which might properly be considered by an insurer in the calculation of a rate have been described; where practically possible all factors applicable to a given rate should be considered. At present all of the factors mentioned in the preceding chapter have their influence in the calculation of rates except "underestimate of outstanding losses," "effect of merit rating," and "profit." The first of these factors represents a tendency which may disappear with improved methods of computing reserves for unpaid losses; the second, a tendency which more scientific rating will probably eliminate; but the third should be considered, at least by the stock companies. It is expected, of course, that rates as now calculated will yield a sufficiently liberal income to pay all losses and to leave a margin of profit, even though these three items are not specifically considered.

The influence which the several factors exert on the rate are expressed by *differentials* and *loadings*. A

⁴ The method here described is that used in the computation of rates for the major part of compensation insurance written in the United States. Departures from this method are in matters of detail rather than of principle.

differential is unity plus or minus a percentage figure, the percentage figure being a variable which is to be applied to a basic quantity in order to make it representative of new conditions. For example, if it were determined that the risk of damage from fire in all classes of buildings in community "A" was fifty per cent greater than in community "B" and the rate of loss were known in "B" for each class, the rate for a particular class in "A" would be found by multiplying the rate for the same class in "B" by the differential, 1.50. A loading is a flat amount or a percentage added to the expected annual loss cost to provide for contingencies, expenses, or profit.

Basic Pure Premiums.—The first step in securing a manual rate is the determination of the *basic pure premium*; a quantity representative of the loss experience under the original Massachusetts law, checked by statistics from other states where compensation has been in force for a considerable length of time and where the figures are reliable. This pure premium is used as a basis for calculating rates for all other states, since it is regarded as the most accurate expression of loss cost experience which it is possible to secure at this stage of development of the business.

Law Differential.—Since the provisions of the laws governing compensation payments vary from one state to another it is necessary to modify the basic pure premium in order to determine what the probable loss experience would have been under the act of each state. The degree of modification is expressed by *law differentials* which measure variations between the schedules of compensation.

Law differentials are calculated by the application of the compensation schedule of the various acts to the Standard Table of Accident Gravity. The Standard Table ⁵ was constructed by Dr. I. M. Rubinow and was the result of a careful study of American and European statistics of accident gravity which seemed to show that the physical results of accidents averaged much the same everywhere; that out of a very large number of accidents the same number would result in death, in dismemberments of various kinds, in total disability of one week, two weeks, three weeks, etc., and in partial disability of varying duration. On the basis of these statistics the table shows per 100,000 accidents:

1. Number of fatal cases.
2. Number of dismemberments, distributed according to their nature.
3. Number of cases of permanent total disability other than dismemberments.
4. Number of cases of permanent partial disability other than dismemberments, distributed according to the percentage of disability.
5. Number of cases of temporary disability, distributed according to duration.

Another table furnishes data of the number and degree of dependents in fatal cases.

The probable cost of 100,000 accidents under a given compensation schedule may be found by computing the payments which would be made on account of each group of deaths or disablements in the table,

⁵ See p. 229.

STANDARD DISTRIBUTION OF ACCIDENTS TABLE

Fatal cases.....	932
Dismemberments.....	2,323
1. Loss of left arm.....	64
2. Loss of right arm.....	95
3. Loss of left hand.....	50
4. Loss of right hand.....	61
5. Loss of left thumb.....	29
6. Loss of right thumb.....	30
7. Loss of left index.....	59
8. Loss of right index.....	69
9. Loss of left middle finger.....	26
10. Loss of right middle finger.....	31
11. Loss of left ring finger.....	14
12. Loss of right ring finger.....	17
13. Loss of left little finger.....	32
14. Loss of right little finger.....	34
15. Loss of thumb and one or more fingers, left hand.....	14
16. Loss of thumb and one or more fingers, right hand.....	17
17. Loss of two or more fingers, left hand.....	63
18. Loss of two or more fingers, right hand.....	66
19. Loss of one phalange of left thumb.....	55
20. Loss of one phalange of right thumb.....	62
21. Loss of phalange of left index.....	83
22. Loss of phalange of left middle finger.....	52
23. Loss of phalange of right index.....	93
24. Loss of phalange of right middle finger.....	53
25. Loss of phalange of ring finger, left hand.....	25
26. Loss of phalange of ring finger, right hand.....	19
27. Loss of phalange of left little finger.....	18
28. Loss of phalange of right little finger.....	17
29. Loss of fingers accompanied by injuries of other fingers, left hand.....	172
30. Loss of fingers accompanied by injuries of other fingers, right hand.....	173
31. Loss of one leg.....	129
32. Loss of both legs.....	3
33. Loss of toes.....	57
34. Loss of one eye.....	405
35. Loss of one eye with injury to the other.....	62
36. Loss of both eyes.....	14
Permanent total disability other than dismemberments.....	110
Permanent partial disability other than dismemberments.....	2,442
Leading to Disability of	
1-10 Per Cent.....	672
11-20 " ".....	728
21-30 " ".....	378
31-40 " ".....	265
41-50 " ".....	179
51-60 " ".....	92
61-70 " ".....	92
71-80 " ".....	36
Temporary disability.....	94,193
Not over 1 week.....	37,225
1-2 weeks.....	24,019
2-3 " ".....	12,145
3-4 " ".....	7,002
4-5 " ".....	4,452
5-6 " ".....	2,693
6-7 " ".....	1,747
7-8 " ".....	1,178
8-9 " ".....	921
9-10 " ".....	586
10-11 " ".....	444
11-12 " ".....	355
12-13 " ".....	285
13-26 " ".....	927
Over 26 weeks.....	214

Total..... 100,000

(From A Standard Accident Table as a Basis for Compensation Rates, by I. M. Rubinow.—Spectator Co., New York, 1915).

the result being expressed in terms of "week's wages," the usual unit of payment. To this is added the cost of medical and surgical services, also expressed in the form of "week's wages." The result is the total of compensation payments for the 100,000 accidents.

A comparison of the computed totals for the original Massachusetts Schedule and for the schedules of other acts will give the probable relative cost of 100,000 accidents. Suppose that it was found that 100,000 accidents in Massachusetts would entail payments of 500,000 "week's wages," while in Oklahoma the cost would be 600,000 "week's wages." Obviously the cost in Oklahoma is twenty per cent greater than in Massachusetts and, other things being equal, the loss experience of Massachusetts multiplied by 1.20 will give the loss experience in Oklahoma. This figure, 1.20, is the law differential for Oklahoma and is applied to the basic pure premium to secure a pure premium for Oklahoma.⁶

Accident Frequency.—This new pure premium is computed on the assumption that the *rate* of accidents is the same in all states as in Massachusetts. Although thoroughly reliable statistics of accident frequency are wanting, those which are available indicate the advisability of applying a differential to the pure premium in some states. If the accident frequency in a given state is ten per cent greater than in Massachusetts the differential would be 1.1.

⁶ The law differentials recommended to the 1917 conference are given on p. 231.

LAW DIFFERENTIALS

California	1.66
Wisconsin	1.60
Michigan	1.04
Minnesota	1.25
Illinois	1.37
Iowa	1.12
Nebraska	1.19
Indiana	1.13
Colorado985
Montana	1.01
Ohio	1.70
New Jersey97
Rhode Island	1.01
Kentucky	1.44
Vermont87
Connecticut	1.28
Maryland	1.33
Maine	1.02
Pennsylvania	1.02
Oklahoma	1.20
Louisiana	1.13
Kansas94
New York	1.89
Massachusetts	1.57

Increasing Cost of the Act.—This factor is recognized by a differential in every state except New Jersey, where the figures show a practically constant loss experience.

Industrial Diseases.—By the use of English and American statistics and of a liberal amount of judgment it has been decided that one per cent of the pure premium should be added to all classifications to cover the cost of compensation on account of industrial diseases in states where they are covered by the law.

A further charge is made in the form of an addition varying from one cent to twenty-two cents per one hundred dollars of payroll for classifications which present specific disease hazards—for example, dusty trades or industries where lead is used.⁷

Catastrophes.—There is no adequate information on which to base an exact catastrophe charge but on the basis of such experience as was available a loading of one cent per one hundred dollars of payroll was adopted for all states except New York, where the loading is two cents. The higher loading is justified by the extremely liberal permanent disability and death benefits which are granted by the law of that state.

Expense.—That portion of the report of the Committee on Loadings and Differentials of the Joint Conference which dealt with the expense factor will best

⁷For an explanation of the methods and statistics used in arriving at this conclusion, see Maddrill, "The Compensation Cost of Occupational Disease."

explain the method which has been adopted for including this item:

In making provision for expense loading, the Committee has deemed it to be its proper function to investigate the actual needs of the business as at present conducted, believing that any movement seeking to reduce expenses, however desirable, is an administrative question rather than an actuarial one.

The Committee finds, after a careful study of the disbursements of representative companies, both as to their total workmen's compensation business and of such business as was reported to the states of New York, Massachusetts and Wisconsin, that the average expense ratio based upon the transactions of the calendar year 1914, has been approximately 40 per cent of the compensation premium income. An analysis of this ratio shows that it is made up of certain major divisions of expense as follows:

Acquisition expense.....	17.5%
General administration expense.....	9.0
Including:	
Payroll audits	2.0
All other	7.0
<hr/>	
Service expenses	11.0
Inspection and accident prevention.....	4.0
Investigation and adjustment of claims.	7.0
<hr/>	
Taxes, licenses, etc.....	2.5
<hr/>	
Total	40.0%
<hr/>	

The above grouping of expenses is presented by the Committee, in order to demonstrate that in considering the possibility of reducing the expense ratio, certain of the items such as "Taxes, licenses, etc.," are not susceptible to reduction by the companies, and that other items, such as "Service expenses," should not be reduced, if efficiency will be thereby impaired. It is evident, therefore, that such reductions as may be effected, must be confined principally to "acquisition expenses" and "general administration expenses."

The Committee finds further that the expenses naturally divide themselves into three general classes:

- (a) Such expense items as inspections and payroll audits do not vary with the gross premium rate, nor are they incurred as a percentage thereof.
- (b) Acquisition expense and taxes are incurred as a percentage of the gross premium rate, and vary directly therewith.
- (c) Items such as expenses of administration and claim adjustment are properly chargeable in part in both of the foregoing ways.

In order to give proper effect to these considerations, the Committee undertook to determine what differences in loading should be recognized in the calculation of rates for the various compensation states. It was found impracticable to give full effect to the wide differences which theoretical exactitude would demand. It was felt to be necessary, however, to recognize that a flat loading for all states is improper and inequitable and certain groupings were adopted for the purpose of producing reasonable and practical results. Accordingly the Committee recommends the following scale of expense loadings:

For states having a differential of	Percentage loadings	State group
Less than 1.25	42½%	1
1.25 to 1.49	40%	2
1.50 to 1.74	37½%	3
1.75 and over	35%	4

These results were applied to the probable relative premium income for 1916 and were found to reproduce approximately 40 per cent loading on the average.⁸

Typical Rate Calculation.—Suppose that it is desired to secure the rate in a given state for a classification whose basic pure premium is \$1.00. Let us assume the following values for the various factors to be used:

Law Differential	1.20
Increasing Cost.....	1.10
Accident Frequency.....	1.05
Expense Loading.....	42½%
Catastrophe Loading.....	1¢

The formula for securing the State Multiplier, i. e., the figure which, applied as a multiplier to the basic pure premium, will give the final manual rate for the given state, is as follows:⁹

⁸ *Proceedings of the Joint Conference on Workmen's Compensation Rates*, pp. 24-25. In one state, Pennsylvania, an expense loading graded according to the premium rate has been adopted.

⁹ The method of introducing the expense factor may be explained by the following example:

$$\begin{aligned}
 x &= \text{the expense loading percentage} \\
 y &= \text{amount to which the expense percentage is applied} \\
 z &= y - \text{amount of the expense loading} \\
 z + xy &= y \\
 z &= y - xy \\
 z &= y(1 - x) \\
 y &= \frac{z}{1 - x}
 \end{aligned}$$

$$\text{State Multiplier} = \frac{\left(\frac{\text{Law Differential}}{1 - (\text{Expense Loading})} \right) \left(\frac{\text{Increasing Cost Factor}}{1 - (\text{Expense Loading})} \right) \left(\frac{\text{Accident Frequency Factor}}{1 - (\text{Expense Loading})} \right)}{1 - (\text{Expense Loading})} + (\text{Catastrophe Loading})$$

Substituting the assumed values:

$$\text{State Multiplier} = \frac{(1.20)(1.10)(1.05)}{1 - .42\frac{1}{2}} + 1c = 2.42 +$$

The state manual rate for a classification of which the basic pure premium is \$1.00 would therefore be \$2.42.¹⁰

Criticism of Present Methods of Calculation.—It is generally agreed that manual rates are not ideally accurate and that present methods of classifying industries are not entirely just to all employers. It may be said, however, that, considering the youth of the business, its rapid growth, and the consequent necessity of constructing a system of rates to meet what was practically an emergency demand, the present rates are as accurate as could be expected. It is true that competitive practices have had their influence, but fortunately that influence is lessening. The groundwork has been laid for building a scheme of charges actuarially correct and a new branch of the actuarial profession has emerged which promises to place the demands of science above the older requirements of individualistic skilled guess work. Only when these ends have been attained will an equitable system of rates exist.

¹⁰ Since this chapter was written new factors have been introduced into the rate calculation to allow for the increased industrial activity and consequent increased accident rate brought about by war conditions and also for the effect of merit rating, profit, and the loss record of the individual state. The basic method of procedure has not been changed.

One general criticism may be applied to every feature of the rate calculation—statistics have been used as general guides to judgment rather than as a direct indication of expected results. This has been done, not because such methods are considered ideal by rate-makers, but because of the paucity of statistics bearing directly on the questions which must be answered. Again, practical necessity has forced the general application of certain factors which should probably be varied to suit specific conditions. Loadings and differentials have been based on statistics from sources whose relation to the insurance of workmen's compensation in the United States has not always been direct, and the conclusions from these statistics have been applied in many cases to all states and to all industries alike. More accurate knowledge would result in modification to suit particular states and particular industries.

The Future.—While the general principles embodied in the present method of rate calculation are fundamental, it is probable that particular methods will sooner or later undergo considerable modification. These methods, adopted to meet an emergency, are necessarily but preliminary to working out a more equitable and dependable scheme.

One of the first developments to be expected and desired is the use of the experience of each state as the basis for its own rates. Predicating rates for one state on experience in another is unsatisfactory, though necessary under the circumstances. No state will develop sufficient exposure in all classifications to serve as an adequate basis, and wherever the exposure is in-

sufficient rates will be based on the experience of other states, but each state should eventually furnish a reliable experience in its principal classifications.

The Standard Table is necessarily somewhat rough, based as it is on data from widely separated sources, and it will probably require adjustment to American conditions if it is to be of service in the future. It is probable also that separate tables should be computed for each industry or for each of several groups of industries if the demands of accuracy are to be satisfied.

Eventually we may expect the factor of "increasing cost" to disappear, when the practice of workman's compensation becomes standardized, when adequate reserves are required, and when workmen become more thoroughly acquainted with its operation.

In general, it may be said that time will bring constantly increasing knowledge of the problems of compensation insurance, that experiment will reveal the defects as well as the sound features of various methods of procedure, that loss experience will develop a statistical basis for prediction. Accuracy in the computation of rates depends on these developments and should progress *pari passu* with them.

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CHAPTER XIX

MERIT RATING¹

Since manual rates are average rates representing the average hazard of all plants in each classification of industry it is obvious that they do not necessarily reflect accurately the hazard of any particular plant. Conditions in some plants are superior to the normal for the industry while conditions in others are sub-normal. The application of the manual rate to all plants within a classification should produce an equitable contribution from the industry to the general insurance fund but it would work injustice to the individual contributors. To measure comparative hazard within classifications and to distribute equitably the burden of premium payment among individual employers, systems of *merit rating* have been adopted.

A *merit rate* is a rate on an individual risk which reflects the deviation of hazard of the risk from the average hazard of risks in the same classification. If the hazard is less than the average a discount from the manual rate is allowed; if greater, an additional charge is made; while risks of average hazard take the manual rate. Thus each policyholder contributes

¹ Merit rating was used to some extent in setting rates for employer's liability insurance, but it has been systematically developed only in connection with compensation insurance. The present chapters therefore deal with practice in the latter field.

to the general fund an amount based on the relative hazard of the industry in which he is engaged and on the relative hazard of his plant as compared with the plants of other policyholders conducting the same type of business. Relative hazard is a measure of the probable loss cost to the insuring organization and is, therefore, a proper basis for rating.

Bases for Merit Rating.—Loss cost in compensation insurance is dependent upon the frequency and gravity of industrial accidents and therefore merit rating is based on a consideration of industrial conditions affecting the rate of accidents and their seriousness. The application of merit rating requires that these conditions in each plant be weighed in their relation to the probable loss cost of the average plant and the result expressed in credits for superior, and in charges for inferior, conditions. Where conditions affecting accidents are capable of inspection this is accomplished through *schedule rating*. Where such underlying conditions are revealed only by the accident record of the plant *experience rating* is used.

SCHEDULE RATING

Definition.—Schedule rating is a method of determining the rate of premium applicable to an individual plant by means of charges added to, and credits subtracted from, the manual rate; these charges and credits to be ascertained by an inspection of the visible characteristics of the risk.²

²This definition covers the method of schedule rating now in general use. Schedule rating might be applied by assuming a rate

The Schedule.—The first requirement of a system of schedule rating is a plan of operation. The plan now in general use is embodied in *The Industrial Compensation Rating Schedule* which was adopted by the *First Conference on Schedule Rating* on July 27, 1916. This schedule is a compilation of standards of safety for industrial plants to be used as a guide for inspecting and rating such plants for workmen's compensation insurance. A standard is set for practically every feature of a risk which affects the accident hazard and an appropriate modification of the manual rate is indicated for the presence or absence of standard conditions. Conformance to certain standards is recognized as super-normal and involves a credit or reduction of the rate, while lack of conformity to normal standards is penalized by a charge. In a few cases provision is made for both credits and charges.

The scope of the schedule is best indicated by its various sections:

1. Buildings
2. Fire Hazard
3. Floors
4. Floor Openings
5. Wall Openings
6. Hoistway
7. Stairs
8. Elevated Runways and Platforms

for a perfect plant, adding charges for defects in actual plants; or by assuming a rate for the poorest possible plant, giving credits for good points. The schedule used for rating coal mines is based on the assumption of a perfect mine.

9. Boilers—High Pressure
10. Pressure Apparatus
11. Steam Engines
12. Electrical Equipment
13. Explosive Hazard Charges
14. Acid Carboys
15. Travelling Crane
16. Elevator
17. Abrasive Wheel
18. Power Transmission Equipment
19. Welfare and Health
20. Machine Hazard
21. Machine—Employee Ratio
22. Safety Organization, Inspection Service
and Education
23. Maintenance and Inspection
24. First Aid and Hospital.

Under each of these headings are grouped standards, rules, charges, and credits which enable the inspector and rater to arrive at proper modification of the manual rate for a given risk.⁸

Types of Hazard.—In the Industrial Schedule three types of hazard are recognized: (1) the catastrophe hazard, (2) the hazard incident to the operation of a plant and affecting all employees, and (3) the hazard incident to operation but to which only a limited number of employees are exposed at any one time.

Catastrophe hazards, such as boiler explosions, fires, collapse of buildings, etc., affect all plants and all in-

⁸ A specimen page from the schedule is given on page 244.

SCHEDULE

39

19f Credit where those Pouring or Handling Molten Metal wear **Leggings and Congress Type Shoes.**

Rule

- (1) Credit under this section shall apply only to classifications marked with an (L). (See table on last pages of schedule). *

20. Machine Hazard

20a Charge on premium equal to one-half ($\frac{1}{2}$) Manual rate for each Power Driven Machine not equipped with **effective Starting and Stopping Device**, not to exceed \$2.00 per machine.

Rule

- (1) This includes Abrasive wheels and non-productive machines except grindstones, blowers and continuously running pumps and compressors.
- (2) This charge shall not apply to machines driven by belts one (1) inch or less in width or one-half ($\frac{1}{2}$) inch or less in diameter.
- (3) The total charge shall not exceed 5% of the premium based on Manual rate.
- (4) This charge shall not apply to individual machines in a group comprising one operating unit so inter-related that the starting or stopping of any one machine will interfere with the operations or process. This rule finds special application in industries such as
Grist Mills
Malsters
Stone Crushing

Definition

An effective Starting and Stopping Device is an individual Belt Shifter, Clutch or Switch which will effectively control the Machine.

CHARGES		CREDITS	
Rate	Premium	Rate	Premium
		1%	
	$\frac{1}{2}$ of rate		

* See p. 247.

dustries equally.⁴ Charges for their presence or credits for their absence should therefore be the same for each unit of exposure and the schedule provides that flat amounts shall be added to or deducted from the manual rate. For example, there is a charge of one cent "where employees are in buildings more than one story in height not provided with fire fighting appliances"; while an "effective automatic sprinkler system" gives a credit of one cent on the rate.

The manual rate, applicable to the entire payroll and representing average hazard, is modified by a percentage addition or reduction to make allowance for variation from the average in particular plants wherever all employees are affected. For example, a charge of one per cent of the manual rate is required "where ventilation, . . . throughout the plant, is not sufficient to carry off all the dust or gases." Individual motor drive for all machines carries a credit of ten per cent. In this way charges and credits are proportioned to the size of the plant and to the hazard of the industry as reflected in the manual rate.

Where only a limited number of employees can be exposed to a hazard at any one time the risk involved is confined to the probability of injury to the exposed employees. In a given plant this type of hazard is effective in proportion to the number of points at which

⁴ In this, and in following paragraphs, the assumptions on the basis of which the schedule was constructed are stated as facts in the interest of clarity. The qualifications should be made that these assumptions are mostly rough approximations, and that accuracy would demand a much more elaborate classification of charges and credits according to the type of plant under consideration.

it occurs, the hazard at each point being the same for all plants. Hence charges and credits are expressed as a flat amount for each point at which the hazard is present and are applicable to the entire premium payment required for the plant. Examples are found in the charge of one dollar "for each set of tight and loose pulleys on power transmission not provided with a standard belt shifter"; and in the credit of two dollars for each circular saw "where point of operation is guarded according to standard."

For most items of hazard specific charges or credits are listed and it is necessary only to turn to the proper page of the schedule to learn what modification is to be applied to the manual rate. A few items, however, are given special treatment, an explanation of which is necessary. Such are the machine-employee ratio; safety organization, inspection service, and education; use of eye protectors, leg-gings, and respirators; and maintenance and inspection.

Machine-employee Ratio.—The larger the number of machines per one hundred employees the greater is the probability of the occurrence of injury. For this reason a policyholder for whose plant the ratio of machines to employees is higher than the ratio for an average plant in the same industry is subject to an extra charge, and vice versa.

A table gives the standard number of machines per one hundred employees engaged in "actual manufacturing operations" or in work "strictly incidental" thereto.⁵

See p. 247.

Key: E = Eye Protector L = Leggings R = Respirators M = Maintenance and Inspection of Chains, Hooks and Ropes		CLASSIFICATION	Machine—per employee ratio Number of machines per 100 employees
		Absorbent Cotton Mfg.	
		Acetic Acid Mfg.	
		Acetylene Gas Machine Mfg.	69
		Acetylene Gas Tank Charging Station.	
R		Acid Mfg. (N.O.C.)	
		Adding Machine Mfg.	71
		Advertising Novelties Mfg. (not ex- clusively wood, metal or celluloid)...	66
		Advertising Signs Mfg. (celluloid)....	
		Advertising Signs Mfg. (glass)	46
		Advertising Signs Mfg. (metal).....	46
E		Aerated Water Mfg.	
		Aeroplane Mfg. (shop only).....	
	R	Agate and Enamel Ware Mfg.	40
		Agricultural Machinery Mfg.	
E	M	Road or Street Making Mch. Mfg. .	
E	M	Threshing or Husking Mch. Mfg. .	82
E	M	Traction Engine or Power Plow Mfg.	82
		Wagon Mfg.	85
	M	Machine Shop (no foundry).....	
E	L	Foundries (iron).....	
E	L	Foundries (malleable iron).....	
		Woodworking.	
E		Agricultural Tools Mfg. (hand tools)..	100
		Alcohol Mfg.	
M	E	Aluminum Smelting.	
		Aluminum Ware Mfg. (from sheet al- uminum).....	100
R		Ammonia Mfg.	
		Analytical Chemists (in shop).....	
M	E	Anchor Mfg.	
		Aniline and Alizarine Mfg.	
M	E	Arms Mfg. (heavy ordnance, not charging shells).....	

Percentage charges and credits, not to exceed seven and one-half per cent of the rate in either case, are worked out according to the following formulæ:⁶

$$8\frac{1}{2}\left(\frac{\text{Standard minus Actual}}{\text{Standard}}\right) - 1 = \% \text{ of rate credit.}$$

$$8\frac{1}{2}\left(\frac{\text{Actual minus Standard}}{\text{Standard}}\right) - 1 = \% \text{ of rate charge.}$$

Suppose that a plant manufacturing agate and enamel ware has thirty machines per one hundred employees, or ten less than the standard for that industry. The credit for this plant would be computed as follows:

$$8\frac{1}{2}\left(\frac{40 - 30}{40}\right) - 1 = 1.12$$

A credit of one and twelve one-hundredths per cent would be applied to the manual rate for this item.

Safety Organization, Inspection Service, and Education.—For the application of the credits provided under this heading (there are no charges) plants are divided into five classes, according to the number of employees.⁷ Standards of organization, inspection,

⁶ In plants of less than ten employees this charge or credit does not apply.

⁷ Class A, 1 to 50 employees inclusive.

Class B, 51 to 150 employees inclusive.

Class C, 151 to 500 employees inclusive.

Class D, 501 to 1000 employees inclusive.

Class E, over 1000.

and education are prescribed for each class and a credit of five, four, and one per cent respectively, allowed. The higher the class, the more elaborate the standards set. If a plant does not measure up to the required standard in all three of these features a smaller credit may be allowed for those activities which are properly cared for.

Use of Eye Protectors, etc.; Maintenance and Inspection.—The use of eye protectors, leggings, and respirators for protection of the employee's person, and inspections of chains, hooks, and ropes, are particularly important in certain industries and credit will be allowed for compliance with prescribed standards for those industries only. Classifications in which such credit may be given are indicated in a table which accompanies the schedule.⁸

Formula Rating.—A few classifications covering the manufacture of metal goods in which stamping presses are used are subject to formula rating exclusively. A formula has been worked out in terms of manual rates, machine workers, total employees, stamping press hazard, and total number of working machines which, when applied, will give the final rate reflecting the conditions present in a plant. Rating experts are not entirely agreed on the validity of the method and a complete explanation of its application is not warranted by the scope of the present volume.

Application of the Schedule.—All manufacturing risks are subject to schedule rating provided the most accurate estimate of payroll available yields a premium

⁸ See p. 247.

of fifty dollars or over. The payroll of executive officers, clerical office force, and salesmen is not considered, as the manual rate applicable to them is not subject to modification.

In certain states where state rating bureaus exist, the schedule is applied by these organizations and the results placed at the service of the insurers. In other states individual insurers apply the schedule or act through the National Workmen's Compensation Service Bureau, a stock company organization, which maintains subsidiary bureaus in a large number of states.

The manual classification to which a plant belongs having been determined, the first step in the application of the schedule is the inspection of the plant. The inspector is provided with a report blank in which all information necessary for rating must be entered. Headings and items in this report form correspond to those found in the schedule.

From the inspector the report goes to a rating clerk who computes the charges and credits for each item and applies the result to the manual rate. Total charges and total credits are finally expressed in terms of dollars added to, or subtracted from, the manual rate and the modified rate resulting from these operations becomes the rate applicable to the risk. Suppose that the total credits amount to \$.089, while the total charges are \$.05, the manual rate being \$.20. The net credit is \$.039 which, when applied to the manual rate gives a modified rate of \$.161.⁹

As very few charges or credits are expressed in

⁹ A specimen rating sheet is reproduced on p. 251.

MERIT RATING

251

terms of "dollars on rate" it is necessary to convert other expressions into these terms. A five per cent modification of a manual rate of one dollar becomes

The Industrial Compensation Inspecting and Rating Schedule.

RATING SHEET

Employer Johnson Clothing Mfg. Co. File No. _____
 Location: _____ Date of Survey _____
 Street and Number 13 Colfax Ave. Town Baltimore State MD.

Deductible by _____ Date _____	CHARGES			ITEM No.	SCHEDULE	CREDITS			Checked by _____ Date _____
	PER CENT OF RATE	DOLLARS ON RATE	DOLLARS ON PREMIUM			PER CENT OF RATE	DOLLARS ON RATE	DOLLARS ON PREMIUM	
	0	0	9.00	1	Buildings	0	0	0	
	0	0	0	2	Fire Hazard	0	.08	0	
	0	0	1.00	3	Floors	0	0	0	
	0	0	0	4	Floor Openings	0	0	0	
	0	0	2.60	5	Wall Openings	0	0	0	
	0	0	2.60	6	Holstways	0	0	0	
	0	0	0	7	Stairs	0	0	0	
	0	0	.60	8	Elevated Runways	0	0	0	
	0	0	0	9	Boilers	0	.02	0	
	0	0	0	10	Pressure Apparatus	0	0	0	
	0	0	0	11	Steam Engines	0	0	0	
	0	0	0	12	Electrical Equipment	0	0	0	
	0	0	0	13	Explosive Hazard	0	0	0	
	0	0	0	14	Acid Carboys	0	0	0	
	0	0	0	15	Cranes	0	0	0	
	0	0	2.00	16	Elevators	0	0	0	
	0	0	0	17	Abrasive Wheels	0	0	0	
	0	0	4.00	18	Power Transmission	5.63	0	0	
	0	0	0	19a	General Order	1.00	0	0	
	0	0	0	19b	Light	2.00	0	0	
	0	0	0	19c	Ventilation	0	0	0	
	0	0	0	19d	Eye Protectors	0	0	0	
	0	0	0	19e	Respirators	0	0	0	
	0	0	0	19f	Leggings and Shoes	0	0	0	
	0	0	0	20	Machine Hazard	0	0	4.20	
	0	0	0	21	Machine Ratio (.36)	3.75	0	0	
	0	0	0	22	Safety Organization Inspection and Education	5.00	0	0	
	0	0	0	23	Maintenance and Inspection	0	0	0	
	0	0	0	24	First Aid and Hospital	1.00	0	0	
Total			22.60		TOTALS	19.38	.04	4.20	Total
.05			.05		TOTALS EXPRESSED AS DOLLARS ON RATE	.039	.04	.01	.089
	% 25	\$.05	CHARGE	Physical	CREDIT	\$.069	% 34		.039
	%	\$	CHARGE	Moral	CREDIT	\$.018	% 9		
	%	\$	CHARGE	Experience	CREDIT	\$	%		
	% 25	\$.05	CHARGE	TOTAL	CREDIT	\$.089	% 44		
	%	\$	CHARGE	NET TOTAL	CREDIT	\$.039	% 19		

CLASSIFICATION	Payroll	Man. Rate	Premium	Adj. Rate
1. Clothing Mfg.	\$ 44,000	\$.20	9	\$ 161
2.	\$	\$	9	\$
3.	\$	\$	9	\$
4.	\$	\$	9	\$
Average Rate \$	Total \$	Total \$		

five cents. A ten dollar charge or credit on the entire premium paid for a risk involving a ten-thousand dollar payroll becomes a ten cent change on the man-

ual rate, which is applied to each one hundred dollars of payroll.

Conclusion.—The necessity of schedule rating is unquestioned. Not only is justice promoted by requiring employers to contribute insurance premiums in proportion to the hazard of their plants, but a direct and stimulating reward is offered for accident prevention. The charges and credits now used are, however, estimates, and as such probably contain large elements of error which must be corrected as compensation insurance develops and as statistics accumulate with which the judgment of raters may be checked. The present schedule was the work of a conference of the ablest men in the field and their continued efforts should secure a schedule which is not only accurate but demonstrably so. Particularly the tendency to produce an overplus of credits in practical application should be corrected in so far as it does not represent an actual average improvement of hazard,¹⁰ and the schedule should be elaborated to include a consideration of the relative importance of each item of hazard in different industries and in different types of plant.

¹⁰ *V. supra.* Page 221, footnote.

CHAPTER XX

MERIT RATING (*Continued*)

EXPERIENCE RATING

Definition.—Experience rating is a method of determining the rate applicable to a given risk by modifying the manual rate, the loss ratio of the risk being used as a basis for the modification. If the rate deduced by this method applies to the period during which the experience has developed it is called *retrospective*; if it applies to a succeeding period it is called *prospective*.

Purpose.—The justification of experience rating, if it is to be found, must rest on its contribution to scientifically accurate measurement of risk. Those who support this method of rating argue that there are intangible elements in the operation and administration of every plant which schedule rating cannot measure because they are not revealed by inspection; that their existence is evidenced by the varying loss ratios of plants of apparently the same physical hazard; and that the proper measure of their effect on the hazard is to be found in the loss record of the individual risk.¹ This is felt to be particularly true of contracting, public service, and miscellaneous risks which

¹ These intangible elements are referred to as the *moral hazard* or the *morale* of the plant.

are not subject to schedule rating and which offer their loss record as the only evidence on which to base merit rates. Advocacy of experience rating has not always been unmixed with a desire to use it for competitive advantage in the quotation of rates and, therefore, proposals for its adoption are often viewed with suspicion as well as criticism by its opponents. There is, however, undoubtedly a large weight of expert opinion which favors experience rating, but among its proponents there are wide differences of opinion on specific schemes for its application.

Requirements for a Scientific Plan of Experience Rating.—Admitting the validity of the general principle, certain requirements of a scientific plan of experience rating may be indicated as generally agreed upon:

1. Experience rating should be applied only to risks large enough to furnish a loss record indicative of "hazard deviation" as distinguished from "chance deviation,"² i. e., there should be a sufficiently large exposure to produce averages of a certain degree of dependability. Whether size of risk should be measured by amount of premium alone or by both premium and payroll is a matter of dispute.

2. Maximum limits should be set on debits and credits so that the application of the plan will not result in a serious depletion of income for the insurance carrier or in so heavy a drain on the insured that he will in fact be denied the protection for which he has paid a premium.

² For the terms quoted the author is indebted to Mr. Joseph H. Woodward's paper on "The Experience Rating of Workmen's Compensation Risks."

3. The maximum charge or credit permitted should vary with the size of the risk, the larger the risk the higher the maximum.

4. The plan should be compulsory for all risks coming within its terms in order to avoid discrimination and competitive sharp practice.

5. The plan should be administered by an impartial body to protect the interests of all parties.

The New York Plan.—The plan adopted by the Compensation Inspection Rating Board of New York to take effect June 30, 1916, embodies all of these requirements and may be said to represent the majority, although not the unanimous, opinion of the advocates of experience rating.

Under this plan all risks which show a completed period of insurance under the New York act of two years or over are subject to experience rating provided they have produced an earned premium of at least \$500 for the two years and, in the case of manufacturing risks, have a payroll exposure of at least \$100,000. For contracting and public service risks the minimum payroll is \$50,000. The past experience of such risks, ascertained by the calculation of loss ratios, "serves as a basis for determining the modification in rates to be applied for the renewal effective June 30th, 1916, or thereafter." The plan is, therefore, prospective.

Calculation of Loss Ratio.—The total losses of each risk are computed by adding the medical cost to the claim cost for the experience period. Medical cost is found by multiplying the total number of notices of injury by twelve dollars, the assumed average cost per

- notice. To ascertain claim cost use is made of a table of values for compensable accidents. For dismemberment cases the statute provides for payment of compensation to be made for seven and one-half to three hundred and twelve weeks, depending upon the nature of the dismemberment. Their cost will be determined by multiplying the statutory number of weeks in each case by two-thirds of the injured man's wages, to be not less than five, nor more than fifteen dollars, the compensation payment provided by the act. For fatal accidents, total permanent disability cases, and all other compensable accidents, average periods of duration of three hundred and twenty-four, six hundred and twenty-four, and eight weeks, respectively, have been assumed. In each case the average number of weeks is multiplied by the compensation payable each week as above.

Having determined the claim cost and the medical cost, and having added them together, the total cost is divided by the total payroll exposure for the risk to determine the loss per hundred dollars of payroll or the pure premium for the risk.

The pure premium is then divided by the manual rate (or average rate if the risk is assigned to more than one classification) to determine the loss ratio. (The average rate is determined by multiplying the total payrolls for the experience period for each classification involved, by the present manual rate for the classification, thus determining a theoretical premium; the sum of the theoretical premiums is then divided by the total payroll to determine the average rate.)

Suppose, for example, that the experience of a given

risk for which the total payroll is \$175,000, the average rate \$0.571, and the earned premium \$1,000, shows these results:

Medical Cost.....	\$ 72
Claim Cost.....	278
	<hr/>
Total Losses.....	\$350

Dividing the total losses by the total payroll:

$$\$350 \div 175,000 = .2\% = \$0.20 \text{ per } \$100.00 \text{ of payroll.}$$

With an average or manual rate of .571 per \$100 of payroll, this represents a loss ratio of thirty-five per cent.

Neutral Zone.—Risks which show a loss ratio of forty to sixty-five per cent inclusive are not entitled to a modification of the manual rate. Within this “neutral zone” deviations from the average are not considered.

Maximum Debits and Credits.—As risks increase in size their loss experience becomes more reliable as an index of hazard. Accordingly the maximum allowable debits and credits are increased.

For risks with earned premium of \$500, the maximum debit or credit is 5 per cent. For risks with earned premium of \$5,000 the maximum debit or credit is 20 per cent. Between these two points the maximum debits or credits are graded proportionately.

To determine the maximum debit or credit for risks producing an earned premium of more than five hundred dollars and less than five thousand dollars the following formula is used:

$$5 + \frac{P - 500}{300} = \text{MC or MD}$$

P = Earned premium

MC = Maximum credit

MD = Maximum debit

In the case assumed above: ⁸

$$5 + \frac{1000 - 500}{300} = 6 \frac{2}{3}$$

Six and two-thirds per cent is the maximum credit for a risk with an earned premium of a thousand dollars.

Computation of Actual Debits and Credits.—

For loss ratio equal to 40 per cent, no credit is allowed. For loss ratio equal to zero, maximum credit is allowed. Between these two points the credits are graded proportionately. For loss ratio equal to 65 per cent no debit will be imposed. For loss ratio equal to 100 per cent maximum debit will be imposed. Between these points the debits are graded proportionately.

Formulae are provided for determining the percentage of debit or credit applicable to a risk, as follows:

$$\left(\text{Unity} - \frac{\text{LR}}{40} \right) \times \text{MC} = \text{percentage of credit}$$

$$\frac{\text{LR} - 65}{100 - 65} \times \text{MD} = \text{percentage of debit}$$

LR = Loss ratio

MC = Maximum credit

MD = Maximum debit

⁸ Pp. 256-257.

Thus a risk producing an earned premium of one thousand dollars with a loss ratio of thirty-five per cent would be entitled to five-sixths of one per cent credit, while the same risk with a loss ratio of eighty per cent would be debited two and six-sevenths per cent of the manual rate.⁴

Schedule Rated Risks.—If a risk is subject to both schedule rating and experience rating the modifications indicated by the two methods are added algebraically and the result applied to the manual rate, with the limitation that “no reduction shall exceed forty per cent of the manual rates.” Suppose, for example, that the application of the schedule results in a charge of twenty per cent, while experience rating indicates a credit of ten per cent. The net charge is ten per cent.

Application of the Plan.—The Compensation Inspection Rating Board, composed of the State Insurance Fund and stock and mutual companies writing compensation insurance in the state of New York, administers the plan under the supervision of the state insurance department. The experience of each risk subject to experience rating is submitted to the Board, which calculates the modification, if any, to which it is entitled. The modified rate is then promulgated to all members of the Board and stands as the officially authorized rate for the risk in question.

Other Plans.—Three other experience rating plans

$$1 - \frac{35}{40} \times 6 \frac{2}{3} = \frac{5}{6} \text{ (per cent credit)}$$

$$\frac{80 - 65}{100 - 65} \times 6 \frac{2}{3} = 2 \frac{6}{7} \text{ (per cent debit)}$$

are in operation; the "Service Bureau plan," the "Massachusetts plan," and the "Ohio plan." The first of these, administered by the National Workmen's Compensation Service Bureau, is practically the same as the New York plan and was put into effect in thirteen states on November 1, 1916. The Massachusetts plan provides for a neutral zone of from forty-five to sixty-five per cent, with a charge of one per cent for each per cent of excess in loss ratio over sixty-five per cent, and a credit of two-thirds of one per cent for each per cent below forty-five. The maximum debit or credit allowed is thirty per cent. Risks with a payroll exposure of twenty-five thousand dollars for an experience period of not over five years are subject to compulsory rating under the plan. The Ohio plan provides a system of debits for all risks, except contracting risks, to which a system of credits is applicable. "The method of applying the experience is based partly upon the number of compensatable accidents, partly on their cost, partly on their gravity, and partly on the base rate for the classification." "The Ohio system appears in general to be unnecessarily complex. . . . It would not be practicable for use in states where compensation insurance is written competitively."⁵ All of these plans are prospective.

Proposed Plans.—Two proposals for experience rating which have not been adopted deserve especial mention. The first was devised by Mr. David S. Beyer of the Massachusetts Employees Insurance Association and is based wholly on the number of com-

⁵ Woodward, Joseph H., "The Experience Rating of Workmen's Compensation Risks," pp. 358-9.

pensable accidents occurring in a plant during the experience period. Employers who have a record better than the average receive a credit, while those whose plants show a higher rate are debited. Mr. Beyer contends that it is largely a matter of chance whether an accident results in serious disability and that the wages of injured men bear no relation to relative safety conditions. The cost of compensation for a plant is therefore not an accurate index of *morale*, and the frequency of compensable accidents is offered as a substitute.

The second of these proposed plans was developed by the Statistical and Actuarial Committee of the Pennsylvania Compensation Rating and Inspection Bureau and is particularly notable as providing for a retrospective plan in which the total charges and credits for the state are balanced. It requires the calculation of a loss ratio for the entire compensation business of the state for each year. This loss ratio is to be treated as a normal on which to base charges and credits. The loss ratio of each individual risk is then to be calculated and a charge of one per cent levied for each per cent that the individual loss ratio exceeds the normal. The charges are to be collected as a part of the adjusted premium for the experience period and are to be distributed to employers whose loss ratios are below normal, participation being measured by amount of premium and variation of loss ratio from normal. This plan came before the Bureau in December, 1916, but was not adopted.

Summary of Arguments Pro and Con.—As experience rating is still a subject of controversy it may be

well to enumerate the arguments for and against its use in compensation insurance. In its favor:

1. By offering a reward for low loss ratios accident prevention is stimulated.
2. It is necessary to a complete measurement of risk as it is the only means of reaching the intangible "moral hazard."
3. It is the only method for applying merit rating to risks not subject to schedule rating.
4. The experience of a large individual risk is a proper index of its own safety conditions.

Contra:

1. Experience rating is a denial of the principles of insurance which call for the combination of a large number of risks in order to obtain dependable averages.
2. It has been used as a competitive device and is still open to competitive abuses.
3. It will work injustice to the employee because the employer will suppress notices of injury and attempt to reduce compensation payments in order to keep his loss record as low as possible.
4. Small risks, which are excluded from the operation of the plan, are thus discriminated against.

CONCLUSION

Merit rating is still in its developmental stages. It lacks the statistical backing which time will bring, and in the meantime recourse must be had to expert judgment. Available figures indicate that merit rating is resulting in a much smaller net reduction of the man-

ual rate than formerly, but little has been done toward justifying particular charges and credits. Future changes may be expected to take the form of more accurate and specialized charges and credits based on actual experience figures.

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CHAPTER XXI

RESERVES

A sum of money set aside by an insurance organization for certain definite purposes is called a reserve. Insurers issuing liability or compensation policies are required by law to maintain an *unearned premium reserve* and a *loss reserve*.¹

UNEARNED PREMIUM RESERVE

Liability and compensation policies are written in practically all cases for a one year term, the premium for the year being collected in advance. The premium is not earned, however, until the policyholder has been afforded protection for the entire year. At any given time the insurer has earned that proportion of the premium represented by the ratio of the time during which the policy has been in force to the total period for which the policy is written. If a policy is written on the first of January for a term of one year, one-twelfth of the premium will be earned on February first.

The unearned portion of the premium constitutes the unearned premium reserve and is regarded as the

¹ Certain insurers are also required to keep a catastrophe reserve, as explained in Chapter XXII.

property of the policyholder, held in trust by the insurance carrier. Accordingly the law requires that unearned premiums shall be charged as a liability in the annual statement. To be exact, the amount of this reserve should be calculated for each individual policy to cover its unexpired term. But this procedure would necessitate so much work that a simpler method has been adopted.

Method of Calculation.—An approximate unearned premium reserve may be calculated by assuming that, at the end of a given month, policies written during that month will have been in force, on the average, a half-month; that policies written during the preceding month will have been in force one and one-half months, and so on. Under this plan, on one-year policies written during December, the insurer will have earned one-twenty-fourth of the premium on December thirty-first, three-twenty-fourths on January thirty-first, and so on until, on the following November thirtieth, twenty-three twenty-fourths will have been earned. The corresponding unearned premium reserves for each of these three dates would be twenty-three twenty-fourths, twenty-one twenty-fourths, and one twenty-fourth of the gross premium. The following table shows the reserve for each month of the policy term:

EARNED AND UNEARNED PREMIUM AT THE END OF EACH MONTH DURING THE TERM OF A ONE-YEAR POLICY

Months	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
Earned.....	$\frac{1}{24}$	$\frac{2}{24}$	$\frac{3}{24}$	$\frac{4}{24}$	$\frac{5}{24}$	$\frac{6}{24}$	$\frac{7}{24}$	$\frac{8}{24}$	$\frac{9}{24}$	$\frac{10}{24}$	$\frac{11}{24}$	$\frac{12}{24}$
Unearned.....	$\frac{23}{24}$	$\frac{21}{24}$	$\frac{19}{24}$	$\frac{17}{24}$	$\frac{15}{24}$	$\frac{13}{24}$	$\frac{11}{24}$	$\frac{9}{24}$	$\frac{7}{24}$	$\frac{5}{24}$	$\frac{3}{24}$	$\frac{1}{24}$

If the volume of premiums on business written by the insurer is constant from day to day the application of this method will give an accurate unearned premium reserve. If business is increasing the reserve will be too small, since the premium volume of the second half of the month will be greater than that of the first half and the amount actually earned will be less than one twenty-fourth of the yearly premium. Conversely, if business is decreasing in volume the unearned premium reserve will be too large. However, the calculation of accurate unearned premium reserves is not sufficiently important to warrant the necessary extra labor, as substantial accuracy is attained under the present method.

The state insurance departments accept a reserve computed on a yearly basis, the assumption being made that, at the time of calculating the reserve, all policies written for a term of one year or less have been in force, on the average, a length of time equal to one-half their term. It is evident that reserves calculated on this basis approximate accuracy much less closely than those calculated on a monthly basis, unless premium income is uniform throughout the year.

LOSS RESERVES

Definition and Purpose.—The loss reserve is “that sum which, with incidental accretions from interest, is sufficient to mature every outstanding obligation, known or unknown, on account of all accidents or other events which may lead to an insurance loss, which have happened *prior* to the date as of which

the reserve is being computed.”² A reserve of this sort is essential in liability and compensation insurance since the obligation of satisfying all claims and of meeting all expenses on account of accidents occurring during the policy period is assumed in the contract. Such claims and expenses may require disbursements for many years after expiration of the policy term. Liability cases may be appealed several times, and compensation laws provide for benefits continuing for long periods. Claims are sometimes made a considerable time after the occurrence of accidents and awards of administrative bodies are occasionally readjusted on the presentation of new evidence.

Ability to meet all obligations, present and future, out of income legitimately applicable to them is a test of solvency. The premium payments made during a particular year are supposed to cover all losses arising from accidents occurring during that year. Hence an insurance organization should be able, after paying current losses and expenses, to set aside a sufficient sum out of the year's premiums to mature all outstanding obligations arising from the year's accidents. The only other income which should be applied to this purpose is interest on the sum set aside.

This test is applied to insurance carriers by the insurance departments of the several states under the terms of statutes which prescribe methods of calculating loss reserves and which require the maintenance of the prescribed reserves as a condition of solvency.

Desiderata.—Adequacy is the prime essential of a

² Woodward, Joseph H. "Workmen's Compensation Reserves," p. 112.

loss reserve, accuracy an important but secondary consideration. The efforts of insurance officials have been directed toward the development of a method which would, without question, produce reserves sufficient to meet outstanding obligations. A deficit works hardship on the carrier, which must meet its obligations from other sources; on policyholders, whose claims may not be met or who must contribute excessive premiums to balance insufficient reserves; and on workmen, who may be unable to collect compensation due them.

While adequate reserves are necessary, redundant reserves are undesirable, for, reserves being drawn from premiums, an excess over actual needs requires an unjustly high premium charge. This excess will go to swell the dividends of stockholders or, in a mutual company, of a group of policyholders of different composition from the group which contributed the premiums. By unduly increasing the charge for insurance scientific conclusions and accurate rating are made difficult.³ An ideal reserve is one just sufficient to accomplish its purpose of maturing every outstanding obligation.

Difficulties.—This ideal is peculiarly difficult of attainment in the insurance of employers' liability and workmen's compensation. Rapidly changing conditions vitiate the significance of accumulated statistics even where such statistics have been kept. Particularly, the change from employers' liability to work-

³ An insurer with a large surplus may continue to charge low rates by taking a part of its reserve funds from surplus. This places the smaller and younger companies at a disadvantage.

men's compensation has brought about new conditions to which the older statistics are not applicable, though reserves for these two forms of business were not separated in statements to insurance departments until January 1, 1914. Even now reserves for all types of liability business are combined in one statement.

If statistics relating to policies on which practically all obligations have matured are used, they are of little value because of their age, while statistics taken from experience under recent policies involve a large element of estimate for obligations not yet matured, and a cumulative error is introduced in making these estimates the basis of further estimates. Because of these facts accurate reserves cannot, at present, be calculated; the best that can be done is to attempt to make them adequate without unreasonably high requirements.

Methods of Calculation.—Any method which may be used for calculating loss reserves must ultimately be based on past experience, even though changed conditions may require a large measure of judgment in adapting such experience to present needs. Four bases have been proposed for the calculation of loss reserves; (1) individual estimates, (2) pure premiums, (3) average cost of notices of injury, of claims, and of suits, and (4) loss ratios.

1. Individual estimates: Under this plan there would be reserved an amount for each policy which the circumstances of the particular case seemed to make necessary. It has the advantage of permitting the consideration of each case on its own merits but leaves opportunity for errors of judgment and fur-

nishes no general standard of adequacy or of accuracy. It also imposes a burden of work in estimating the probable cost of each separate notice of injury, claim, or suit which makes it somewhat impractical.

2. Pure premiums: Pure premiums, accurately determined, represent the losses which an insurer has to meet. If it is known how much has been expended under a particular policy, that amount subtracted from the pure premium should give the reserve for losses to be experienced in the future. The difficulty with the application of this method is that pure premiums are not necessarily accurate and that payments of losses and loss expenses may be excessive. An adequate reserve must be prospective, valued on the basis of future payments, rather than retrospective, valued on the basis of what is left after past payments have been made.

3. Average costs of notices of injury, claims, and suits: This rather awkwardly designated method has as its basis the average cost of settlement for all notices of injury, claims, and suits. These average costs are determined from experience. The reserve at time of valuation is found by multiplying the number of notices, claims, and suits by their respective average costs. From the sum of these results are subtracted the amounts already paid in losses and loss expenses. The method is simple of application but results under it were unsatisfactory, as it gave opportunity for the suppression of notices of injury and as the average costs varied greatly in different localities, under different classes of liability business, and under different employers.

4. Loss ratios: Loss ratios fixed by statute, determined from the experience of individual insurers, or determined from the combined experience of all insurers may be used as a basis for reserves. Under this scheme the loss ratio to be used is applied to the gross premium to obtain the probable amount applicable to losses and loss expenses. From this amount payments already made are deducted and the remainder constitutes the required reserve. The principal objection to the plan is that the reserve is based on the gross premium, a quantity dependent on the action of the insurer and not necessarily representative of the probability of loss. This objection has less force where rates are regulated by law. Other objections to the method will appear in the discussion of the present law. Its principal merits are that it is easy of application, that it has given better practical results than the average cost method, and that it is easily checked by supervising authorities.

Present Law.—The law which now governs the reserves for liability and compensation insurance in New York, Massachusetts, Ohio, Minnesota, Washington, and other states, was first enacted in 1911 in seven states and represented, at that time, the consensus of opinion of insurance officials.⁴ It provides for a combination of the loss ratio, average cost, and indi-

⁴ A reserve law enforced in several important states covers business written in other states as well, since a company, to do business in a state, must value the reserves for its entire business in accordance with the requirements of that state. The law to be described operates as a minimum requirement for the major part of the liability and compensation insurance business.

vidual estimate methods. The loss ratio, which is applied to policies written during the last five years before calculation of the reserve, is that experienced by the individual insurer during the first five years of the ten-year period immediately preceding calculation. It may not, however, be less than fifty-five per cent. This loss ratio is applied to the earned premiums of each of the last five years to determine the total probable losses. From the result are subtracted losses and loss expenses already paid and the remainder is the legal reserve.

The reserve thus ascertained for the first three of the last five years is subject to a *suit test*.

The suit test consists in taking the sum of the following items for each of these three years: the number of pending suits multiplied by \$750, the amount necessary to extinguish pending death claims under workmen's compensation policies, and the present value of disability claims pending under workmen's compensation policies, and comparing this sum with the reserve determined by using the loss ratio. Whichever amount is the greater is to be used as the reserve.⁵

The reserve for the last two years is determined by the loss ratio alone.⁶

⁵ Law, Frank E., *A Review of Liability and Workmen's Compensation Loss Reserve Legislation*, p. 18.

⁶ In Pennsylvania a loss ratio of 55 per cent is fixed by statute for both liability and compensation business, while in California a loss ratio of 75 per cent is fixed for compensation business. Under rulings of the state insurance departments the fixed loss ratio of 55 per cent is now used in other states. The fixed loss ratio is also applied to all companies which have been in business less than ten years.

The reserve for policies written more than five years before the date of valuation of the reserve is indicated under a, b, c, and d of the following list of items, the sum of all of which constitutes the reserve required by law to be held by companies writing liability and compensation insurance:

- (a) For all suits pending under policies written more than ten years prior to the date of making the statement, except suits under workmen's compensation policies, \$1,000 for each suit.
- (b) For all suits pending under policies written more than five years and less than ten years prior to the date of making the statement, except under workmen's compensation policies, \$750 for each suit.
- (c) For all death claims pending under workmen's compensation policies written more than five years prior to the date of making the statement, the amount necessary to extinguish such death claims.
- (d) For all disability claims pending under workmen's compensation policies written more than five years prior to the date of making the statement, the present value of such claims.
- (e) For the policies written in the first three years of the five-year period preceding the date of making the statement, the reserve determined for each year separately by the method of loss ratios or by the suit test, so-called, whichever is the larger, as explained above.
- (f) For the policies written in the last two years of the five-year period preceding the date of making the statement, the reserve determined for

each year separately by the method of loss ratios, as explained above.⁷

Defects of the Present Law.—1. It is generally agreed that the present method of calculation produces inadequate reserves. Competition forces carriers to maintain reserves at the minimum prescribed by the law and this has resulted in a serious situation among the weaker companies.

2. Experience five years old at the time of valuation of reserves is a poor index to conditions at the later date. Changes in laws and in other matters affecting loss payments are not felt promptly enough.

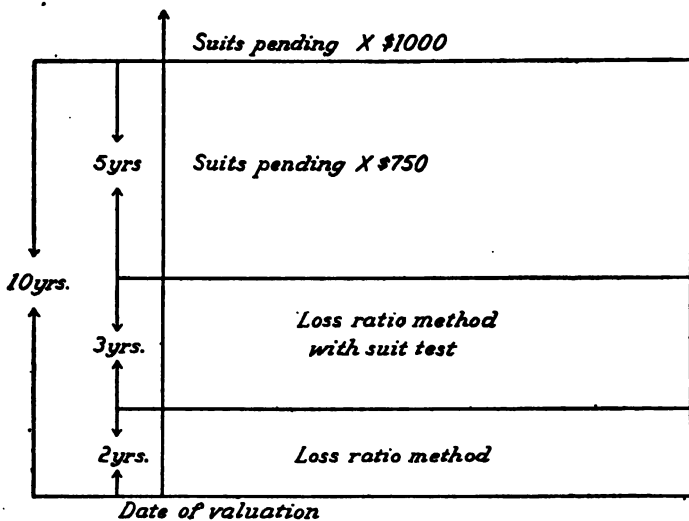
3. Liability experience is no sufficient indication of probable experience under compensation policies. The two kinds of business are fundamentally different and there is no reason for expecting that their loss ratios will be the same.

4. The amount of the reserve for the last two years is dependent on the action of the insurance company in fixing premium rates and may not be sufficient. This defect is less important where rates are regulated by the state.

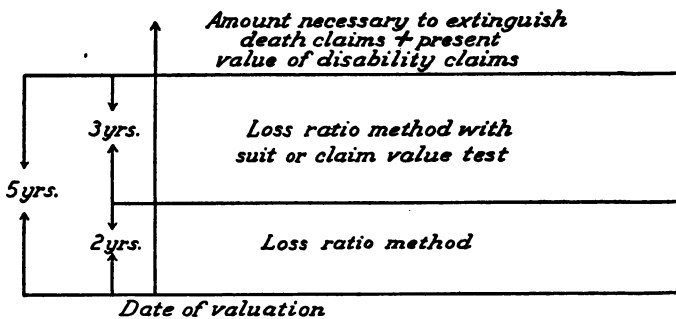
5. The amounts provided to cover costs of outstanding suits and the loss ratios prescribed have proved inadequate.

Proposed Law.—These defects have led to the proposal of a new law by the National Convention of Insurance Commissioners which will probably be enacted in several states during the 1917 sessions of their leg-

⁷ Law, Frank E., *op. cit.*, p. 19. This method of calculating reserves is graphically presented on p. 276.



LIABILITY RESERVES.



WORKMEN'S COMPENSATION RESERVES

islatures.⁸ The proposed method differs in principle from the older law in requiring that reserves be calculated on the basis of fixed loss ratios of sixty per cent for liability policies, and of sixty-five per cent for compensation policies. However, in calculating the reserve for compensation claims sixty per cent and sixty-two and one-half per cent will be used on December 31, 1917, and December 31, 1918, respectively, the sixty-five per cent ratio going into effect on December 31, 1919. These loss ratios are to be applied to the last three years preceding the date of statement, subject to the requirement that, for the first of these three years, the reserve shall be not less than seven hundred and fifty dollars for each outstanding liability suit and "not less than the present value at four per centum interest of the determined and the estimated unpaid compensation claims."

Reserves provided for policies written in other periods are as follows:

For all liability suits being defended under policies written more than

- (a) Ten years prior to the date as of which the statement is made, one thousand five hundred dollars for each suit.
- (b) Five and less than ten years prior to the date as of which the statement is made, one thousand dollars for each suit.
- (c) Three and less than five years prior to the date as of which the statement is made, eight hundred and fifty dollars for each suit.

⁸ Massachusetts has adopted this proposal in an act approved Feb. 19, 1917.

For all compensation claims under policies written more than three years prior to the date as of which the statement is made, the present values at four per centum interest of the determined and the estimated future payments.

Other Methods Used.—Other methods are in use in some cases by state funds and compensation mutuals which differ from that outlined above principally in the extent to which losses are individually estimated, or which employ the method of estimated "average costs" for computing the reserve on the later years of issue. Such methods are theoretically sound as they proportion the reserve directly to the probability of future payments of loss. The chief objection to them is found in the difficulty of supervision, as their accuracy could not be checked by a state insurance department without an examination of each company's records. Certain states still apply the average cost method to both liability and compensation business but the more progressive insurance states have adopted the method outlined above.

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CHAPTER XXII

INSURANCE OF THE CATASTROPHE HAZARD¹

In insurance, as in other forms of business enterprise, an excess of disbursements over income is fatal to success, and security against the consequences of events which abnormally increase disbursements is a matter of primary interest to insurers and to policyholders. The largest and most variable item in the disbursements of an insuring organization is that attributable to "losses," payments on account of the occurrence of events against which insurance has been granted. Premiums, which are supposed to provide resources to meet loss payments, are calculated on the basis of the theory that past losses furnish an approximately accurate guide to the future. Hence an abnormal excess of actual losses over expected might bring about such an increase of disbursements as to lead to embarrassment or insolvency for the insurer and to inadequate protection for the insured.

Any event which causes a loss sufficiently great to embarrass an insuring organization and to endanger the security which it offers to policyholders is known

¹ The greater part of this chapter is a reprint of an article by the author on the same subject, which was published in the *Annals of the American Academy of Political and Social Science*, Vol. LXX, March, 1917.

as a *catastrophe*. The point at which losses resulting from a single event become sufficiently large to classify the event as a catastrophe varies between insurers; the larger the income account, the larger the loss which can be experienced without serious disturbance. It varies also in the minds of insurance officials; the more conservative the management, the lower the point. Wherever the point may be, adequate protection of the policyholder demands that the insurer take measures to secure itself against such catastrophe losses.

Susceptibility to catastrophe varies greatly between different classes of risks and is dependent upon the probability of a single event causing a serious loss. A single mine accident may cause deaths and injuries which entail abnormally large payments under a compensation law; an equivalent accident could not occur to the widely scattered drivers of a taxicab company. The employees of a factory operated by steam power are subject to an explosion hazard which does not exist in an electrically operated plant.

Further, the catastrophe hazard bears no necessary relation to the average losses on a given class of risks. One class may show a heavy loss experience due to a large number of individual losses, no one of which is unusually serious. In another, losses may occur only occasionally, but each loss may be extremely heavy, approaching or reaching the point which places it in the catastrophe group.

No one form of security against the catastrophe hazard has become standardized, each insurer adopting whichever of the available agencies seems best or

most expedient—its decision resting on considerations of the size and character of its business and its underwriting practices. Three general methods are in active use; refusal to assume risks involving a catastrophe hazard, accumulation of reserve funds from which extraordinary losses may be paid, and shifting catastrophe risks to other insurers through reinsurance.

Limits.—The simplest and most obvious method of dealing with the catastrophe hazard is to avoid it altogether by refusing to accept liability for losses beyond a certain amount on a given risk or group of risks. Employer's liability insurance is written with standard limits of \$5,000 and \$10,000; the \$5,000 limit applying to liability for the injury of any one man, and the \$10,000 limit applying to liability for injuries arising out of any one accident.² •

Examples of this type of practice could be cited from practically every form of insurance. It is the individualistic method of meeting the problem, each insurer assuming whatever risk it can safely carry and leaving the remainder to be placed with other insurers or retained by the policyholder. Its application forces large concentrated interests to seek their insurance from several insurers and increases the complexities attendant on a settlement of loss.

Accumulation of Catastrophe Reserves.—Every insurance organization maintains a surplus from which, if necessary, unusual demands may be met. Even with careful attention to the limitation of risk there is

² An increase in these limits involves the payment of additional premium, the amount of which is partially determined by the susceptibility of the risk to the catastrophe hazard.

a possibility of unusually heavy losses due to general conditions, and occasionally risks which underwriters have considered as "separate and distinct" may be shown to be connected in an unforeseen manner. Proper management requires a fund which will provide financial reinforcements with which to meet such losses.

Some organizations assume risks which are known to involve a catastrophe hazard on the theory that, while a catastrophe loss may embarrass them if it must be met from a single year's income, they will be able to meet such losses successfully if spread over a term of years. These insurers accumulate a "catastrophe reserve" by setting aside an appropriate amount. Depletion of the reserve to meet extraordinary losses is corrected by new accumulations in following years. The state workmen's compensation funds are required by law to maintain such reserves which, with one exception, are their sole immediate resource for meeting catastrophe losses. For example, in New York ten per cent of the premiums received by the fund is to be set aside until a total of \$100,000 is reached, after which five per cent is to be set aside until the fund is large enough to cover the catastrophe hazard.

Reinsurance.—Reinsurance is the latest and most favored method of dealing with the catastrophe hazard. The practice of limiting risks is objectionable to policyholders who prefer to place as much insurance as possible with one company, provided it offers ample security; and also to insurers who desire to offer coverage for large risks and thereby increase the attractiveness of their agency contracts. The practice of re-

insuring with other companies that portion of a risk which involves a catastrophe hazard enables a single company to assume large "lines" and, at the same time, offer security to its policyholders. Each reinsurer limits the risk which it will assume in order that its own stability may not be threatened and requires the original insurer to retain a certain part of the risk to promote careful selection.

Reinsurances may be effected by the submission of individual risks to the reinsurer for acceptance or by means of a general contract under the terms of which the reinsurer automatically assumes a stated amount on each risk at the moment that the risk is written by the original insurer. Reinsurers are divided into two broad classes; independent reinsurers, whose relation to the reinsured is purely one of contract for indemnity, and mutual reinsurance organizations of which the reinsured are members.

Workmen's Compensation.—It is usually required by law that the amounts payable to injured employees under a workmen's compensation policy shall be limited only by the provisions of the compensation act. An insurer can apply the principle of limits only by refusing to accept undesirable risks. If a risk is accepted it carries with it the catastrophe hazard incident to its classification. Reinsurance is, therefore, peculiarly necessary in this branch of the business in which the reinsurer, in return for a percentage of total premiums, assumes liability for all losses in excess of a specified amount arising out of any one accident.

A considerable amount of this business is handled by London Lloyds and by the larger insurance com-

panies, but the mutual principle has been applied in at least two organizations; the Workmen's Compensation Reinsurance Bureau, and the Mutual Corporations' Reinsurance Fund. The Bureau is maintained by fifteen stock companies which pay into a general fund five per cent of premiums received on account of risks in the state of New York and two and one-half per cent of premiums from other states. With the exception of losses on certain prohibited extra-hazardous classifications, the Bureau assumes liability for losses due to a single accident in excess of \$25,000. Members participate in any surplus above the requirements of the fund and are liable for assessments in case of a deficit. For accounting purposes the Bureau divides its business into two groups according to the percentage of premiums paid, each group being financially distinct. Dividend payments are subject to the requirement that a fund of \$250,000 be accumulated and maintained for each group.

The Mutual Fund is operated on a somewhat similar plan. Its membership includes nine mutual companies in New York State. Contributions of five per cent of total premiums are made to the fund and each company is liable, if necessary, for an additional assessment of five per cent of premiums collected during the year preceding a catastrophe loss. Losses in excess of \$25,000 but not exceeding \$100,000 are paid from the fund. The risk in excess of \$100,000 is usually shifted to other reinsurers.

Akin to these organizations is "The Associated Companies" a combination of ten stock companies exclusively for the writing of mining risks, which in-

volve a high degree of catastrophe hazard. All premiums and losses are divided among the companies equally, the ordinary as well as the catastrophe risks being distributed.

Reinsurance extends the principle of insurance from the distribution of losses of individuals to the distribution of losses of insurers. Systematic coöperation of this sort enables insurance organizations, by protecting themselves, to offer greater security to their policyholders.

APPENDICES

APPENDIX A

THE NEW YORK WORKMEN'S COMPENSATION LAW (With Notes of the State Industrial Commission)

[Chapter 816 of the Laws of 1913, as reenacted and amended by chapter 41 of the Laws of 1914, and as amended up to January 1, 1917, constituting chapter 67 of the Consolidated Laws. The constitutionality of this Workmen's Compensation Law has been upheld in *Jensen v. Southern Pacific Co.*, 215 N. Y. 514; *Burns v. Southern Pacific Co.*, 215 N. Y. 120; and *Walker v. Clyde Steamship Co.*, 215 N. Y. 529. These cases have been appealed to the Supreme Court of the United States. They have been argued there and await decision. An older, voluntary plan of workmen's compensation is embodied in Labor Law, §§ 204-212, still upon the statute books. The Workmen's Compensation Law should be constructed broadly and liberally: *Matter of Petrie*, 215 N. Y. 335; *Costello v. Taylor*, 217 N. Y. 179; *Winfield v. N. Y. C. & H. R. R. Co.*, 168 App. Div. 351, 216 N. Y. 284; *Moore v. Lehigh Valley R. R. Co.*, 169 App. Div. 177; 217 N. Y. 27; *Rheinwald v. Builders' Brick & Supply Co.*, 168 App. Div. 425; *McQueeney v. Sutphen & Myer*, 167 App. Div. 528.]

- Article 1. Short title, application, definitions (§§ 1-3).
2. Compensation (§§ 10-34).
3. Security for compensation (§§ 50-54).
4. State workmen's compensation commission (§§ 60-77).

5. State insurance fund (§§ 90-106).
6. Miscellaneous provisions (§§ 110-119).
7. Laws repealed; when to take effect (§§ 130-131).

ARTICLE I

SHORT TITLE; APPLICATION; DEFINITIONS

Section 1. Short title.

2. Application.

3. Definitions.

Section 1. SHORT TITLE.—This chapter shall be known as the “workmen’s compensation law.”

§ 2. APPLICATION.—Compensation provided for in this chapter shall be payable for injuries sustained or death incurred by employees engaged in the following hazardous employments:*

For the Commission’s power to rearrange the groups of § 2, compare § 95.

Group 1. The operation, including construction and repair, of railways operated by steam, electric or other motive power, street railways, and incline railways, but not their construction when constructed by any person other than the company which owns or operates the railway, including work of express, sleeping, parlor and dining car employees on railway trains.

Compare § 114, Interstate commerce.

Group 2. Construction, repair and operation of railways not included in group 1. [*Group 2 am’d by L. 1916, ch. 622.*]

Compare § 114, Interstate commerce.

* Compare the notes to the several subdivisions under § 3.

Group 3. The operation, including construction and repair, of car shops, machine shops, steam and power plants, and other works for the purposes of any such railway, or used or to be used in connection with it when operated, constructed or repaired by the company which owns or operates the railway.

Compare § 114, Interstate commerce.

Group 4. The operation, including construction and repair of car shops, machine shops, steam and power plants, not included in group three.

Compare § 114, Interstate commerce.

Group 5. The operation, including construction and repair, of telephone lines and wires for the purposes of the business of a telephone company, or used or to be used in connection with its business, when constructed or operated by the company.

Compare § 114, Interstate commerce.

Group 6. The operation, including construction and repair, of telegraph lines and wires for the purposes of the business of a telegraph company, or used or to be used in connection with its business, when constructed or operated by the company.

Compare § 114, Interstate commerce.

Group 7. Construction or repair of telegraph and telephone lines not included in groups five and six. [*Group 7 am'd by L. 1916, ch. 622.*]

Compare § 114, Interstate commerce.

Group 8. The operation, within or without the state, including repair, of vessels other than vessels of other states or countries used in interstate or foreign commerce,

when operated or repaired by the company; marine wrecking. [*Group 8 am'd by L. 1916, ch. 622.*]

Compare § 114, Interstate Commerce, and group 10, below, note on longshore work.

"Operation" includes loading and unloading; when the employer and owner is a New York corporation, the presumption is that the vessel is not one of another State or country: *Edwardsen v. Jarvis Lighterage Co.*, 168 App. Div. 368.

Group 9. Shipbuilding, including construction and repair in a ship-yard or elsewhere, not included in group eight.

Group 10. Longshore work, including the loading or unloading of cargoes or parts of cargoes of grain, coal, ore, freight, general merchandise, lumber or other products or materials, or moving or handling the same on any dock, platform or place, or in any warehouse or other place of storage.

Compare § 114, Interstate commerce.

The specific enumeration of longshore work in this group excludes such work from group 8: *Jensen v. Southern Pacific Co.*, 215 N. Y. 519, 520.

Rag picking in a refuse dump on the shore is not longshore work: *Tomassi v. Christensen*, 171 App. Div. 284.

Group 11. Dredging, subaqueous or caisson construction or repair, and pile driving. [*Group 11 am'd by L. 1916, ch. 622.*]

Driving sheeting for a jetty to protect baths on a water front is pile driving: *Mazzarisi v. Ward & Tully*, S. D. R.,* vol. 4, p. 443; 170 App. Div. 868.

Group 12. Construction, installation, repair or operation of electric light and electric power lines, dynamos, or appliances, and power transmission lines. [*Group 12 am'd by L. 1916, ch. 622.*]

*"S. D. R. is an abbreviation for State Department Reports.

Group 13. Paving; road building, curb and sidewalk construction or repair; sewer and subway construction or repair, work under compressed air, excavation, tunneling and shaft sinking, well digging, laying and repair of underground pipes, cables and wires, not included in other groups; street cleaning, ashes, garbage or snow removal; operation of waterworks. [*Group 13 am'd by L. 1916, ch. 622.*]

Group 14. Lumbering; logging, river-driving, rafting, booming, saw mills, bark mills; shingle mills, lath mills, lumber yards; manufacture of veneer and of excelsior; manufacture of barrels, kegs, vats, tubs, staves, spokes, or headings. [*Group 14 am'd by L. 1916, ch. 622.*]

Group 15. Pulp and paper mills.

Group 16. Manufacture of furniture, interior wood-work, organs, pianos, piano actions, canoes, small boats, coffins, wicker and rattan ware; upholstering; manufacture of mattresses or bed springs.

Group 17. Planing mills, sash and door factories, manufacture of wooden and corrugated paper boxes, cheese boxes, moldings, window and door screens, window shades, carpet sweepers, wooden toys, wooden articles and wares or baskets; cork cutting. [*Group 17 am'd by L. 1916, ch. 622.*]

Group 18. Mining; reduction of ores and smelting; preparation of metals or minerals; oil and gas wells. [*Group 18 am'd by L. 1916, ch. 622.*]

Group 19. Quarries; sand, shale, clay or gravel pits, lime kilns; manufacture of brick, tile, terra-cotta, asbestos, fire-proofing, or paving blocks, manufacture of calcium carbide, cement, asphalt or paving material; stone crushing or grinding. [*Group 19 am'd by L. 1916, ch. 622.*]

Group 20. Manufacture of glass, glass products, glassware, porcelain or pottery.

Group 21. Iron, steel or metal foundries; rolling mills; manufacture of castings, forgings, heavy engines, locomotives, machinery, safes, anchors, cables, rails, shafting, wires, tubing, pipes, sheet metal, boilers, furnaces, stoves, structural steel, iron or metal; machine shops including repairs. [*Group 21 am'd by L. 1916, ch. 622.*]

Group 22. Operation and repair of stationary engines and boilers, freight and passenger elevators, not included in other groups; window cleaning; heating and lighting. [*Group 22 am'd by L. 1916, ch. 622.*]

In connection with the addition of elevators to group 22 by L. 1916, ch. 622, compare note under group 41.

Group 23. Manufacture of small castings or forgings, metal wares, instruments, utensils and articles, hardware, nails, wire goods, screws, bolts, metal beds, sanitary, water, gas or electric fixtures, light machines, typewriters, cash registers, adding machines, carriage mountings, bicycles, metal toys, tools, cutlery, instruments, photographic cameras and supplies, sheet metal products, buttons; jewelry; gold, silver and plated ware; articles of bone, ivory and shell. [*Group 23 am'd by L. 1916, ch. 622.*]

Group 24. Manufacture of agricultural implements, threshing machines, traction engines, wagons, carriages, sleighs, vehicles, automobiles, motor trucks, toy wagons, sleighs or baby carriages; blacksmiths; horse-shoers. [*Group 24 am'd by L. 1916, ch. 622.*]

Group 25. Manufacture of explosives and dangerous chemicals, corrosive acids or salts, ammonia, gasoline, petroleum, petroleum products, celluloid, gas, charcoal, arti-

ficial ice, gun powder or ammunition; ice harvesting, ice storage and ice distribution. [*Group 25 am'd by L. 1916, ch. 622.*]

The addition of the ice industry to this group by L. 1916, ch. 622, may be considered in connection with *Aylesworth v. Phoenix Cheese Co.*, 170 App. Div. 34.

Group 26. Manufacture of paint, color, varnish, oil, japans, turpentine, printing and other ink, printers' rollers, tar, tarred, pitched or asphalted paper. [*Group 26 am'd by L. 1916, ch. 622.*]

Group 27. Distilleries, breweries; manufacture of spirituous or malt liquors, alcohol, wine, mineral water or soda waters; bottling. [*Group 27 am'd by L. 1916, ch. 622.*]

Group 28. Manufacture of drugs and chemicals, not specified in group twenty-five, medicines, dyes, extracts, pharmaceutical or toilet preparations, soaps, candles, perfumes, non-corrosive acids or chemical preparations, fertilizers, including garbage or sewerage disposal plants; shoe blacking or polish. [*Group 28 am'd by L. 1916, ch. 622.*]

This group covers a general utility man accidentally killed while building a shelf in a wholesale drug establishment: *Larsen v. Paine Drug Co.*, 169 App. Div. 838; affirmed by Court of Appeals, May 12, 1916.

A mere refuse dump is not a garbage disposal plant: *Tomassi v. Christensen*, 171 App. Div. 284.

Group 29. Milling; manufacture of cereals or cattle foods, warehousing; storage of all kinds and storage for hire; operation of grain elevators. [*Group 29 am'd by L. 1916, ch. 622.*]

The amendment of 1916, inserting the words "of all kinds and storage for hire" appears to cover private as well as public

storage and so to offset *Mihm v. Hussey*, 169 App. Div. 742, as a precedent.

Injury to an employee of a storage company by the overturning of an automobile while he is buying fruit for his employer is not compensatable: *Sickles v. Ballston R. S. Co.*, 171 App. Div. 108.

Group 30. Packing houses, meat markets, abattoirs, manufacture or preparation of meats or meat products or glue, gelatine, paste or wax. [*Group 30 am'd by L. 1916, ch. 622.*]

In connection with the words "meat markets" inserted by L. 1916, ch. 622, compare *Kohler v. Frohmann*, 167 App. Div. 533, and *Newman v. Newman*, 169 App. Div. 745, affirmed by the Court of Appeals, June 6, 1916.

This group does not cover the ordinary preparation of meat for cooking purposes: *De La Gardelle v. Hampton Co.*, 167 App. Div. 617.

Group 31. Tanneries.

Group 32. Furriers; manufacture of leather goods and products, belting, saddlery, harness, trunks, valises, boots, shoes, gloves, umbrellas, rubber goods, rubber shoes, tubing, tires or hose. [*Groups 32 am'd by L. 1916, ch. 622.*]

Group 33. Canning or preparation of fruit, vegetables, fish or food stuffs; pickle factories and sugar refineries; manufacture of dairy products. [*Group 33 am'd by L. 1916, ch. 622.*]

This group does not cover the ordinary preparation of food stuffs for cooking purposes: *De La Gardelle v. Hampton Co.*, 167 App. Div. 617.

Group 34. Bakeries, including manufacture of crackers and biscuits, manufacture of confectionery, spices or condiments.

Group 35. Manufacture of tobacco, cigars, cigarettes or tobacco products.

Group 35. Manufacture of cordage, ropes, fiber, brooms or brushes; manila or hemp products.

Group 37. Flax mills; manufacture of textiles, or fabrics, spinning, weaving and knitting manufactories; manufacture of yarn, thread, hosiery, cloth, blankets, carpets, canvas, bags, shoddy or felt.

Group 38. Manufacture of men's or women's clothing, white wear, shirts, collars, corsets, hats, caps, furs or robes, or other articles from textiles or fabrics. [*Group 38 am'd by L. 1916, ch. 622.*]

Group 39. Power laundries; dyeing, cleaning or bleaching.

Group 40. Printing, engraving, photo-engraving, stereotyping, electrotyping, lithographing, embossing; manufacture of moving picture machines and films; manufacture of stationery, paper, cardboard boxes, bags, or wallpaper; and bookbinding. [*Group 40 am'd by L. 1916, ch. 622.*]

Group 41. The operation, otherwise than on tracks, on streets, highways, or elsewhere of cars, trucks, wagons or other vehicles, and rollers and engines, propelled by steam, gas, gasoline, electric, mechanical or other power or drawn by horses or mules; public garages, livery, boarding or sales stables; movers of all kinds. [*Group 41 am'd by L. 1916, ch. 622.*]

The *business* of operating vehicles is covered by this group; so that accidents to the following employees are compensatable: a stableman who does no driving: *Costello v. Taylor*, 217 N. Y. 179; a driver putting his horse in its stall: *Smith v. Price*, 168 App. Div. 421; a helper on an automobile truck chasing mischievous boys: *Hendricks v. Seeman Bros.*, 170 App. Div. 133, and a driver of a florist's wagon adjusting a customer's window box: *Glatel v. Stump*, S. D. R., vol. 6, p. 397. Compare note to § 3, subd. 1.

Elevators are not vehicles within the purview of this group: *Wilson v. Dorflinger & Sons*, 218 N. Y. 84, but are covered by the amendment to group 22 effected by L. 1916, ch. 622.

A driver who had put up his horse several hours before and was injured while making deliveries afoot was denied compensation: *Newman v. Newman*, 169 App. Div. 745, affirmed by the Court of Appeals, June 6, 1916; compare note to § 2, group 30.

Group 42. Stone cutting or dressing; marble works; manufacture of artificial stone; steel building and bridge construction or repair; installation or repair of elevators, fire escapes, boilers, engines or heavy machinery; brick-laying, tile-laying, mason work, stone-setting, concrete work, plastering; and manufacture of concrete blocks; structural carpentry; painting, papering, picture hanging, glazing, decorating or renovating; sheet metal work; roofing; construction, repair and demolition of buildings, bridges and other structures; salvage of buildings or contents; plumbing, sanitary lighting or heating installation or repair; installation and covering of pipes or boilers; junk dealers. [*Group 42 am'd by L. 1916, ch. 622.*]

A macaroni company casually employing a carpenter to put in a partition is not carrying on the carpenter business for profit and is not, therefore, liable for compensation when the carpenter meets with an accident: *Bargey v. Massaro Macaroni Co.*, 170 App. Div. 103; affirmed by the Court of Appeals, June 16, 1916.

Group 43. Any employment enumerated in the foregoing groups and carried on by the state or a municipal corporation or other subdivision thereof, notwithstanding the definition of the term "employment" in subdivision five of section three of this chapter. [*Group 43 added by L. 1916, ch. 622.*]

Compare § 3, subds. 3, 5.

Contracts for public work must "contain a stipulation that the same shall be void and of no effect unless the person or corporation making or performing the same shall secure compensa-

tion for the benefit of, and keep insured during the life of said contract, such employees, in compliance with the provisions of said law." L. 1916, ch. 478.

Any employer not carrying on one of the employments enumerated in this section, or who carrying on one of such employments has in his employ an employee not included within the term "employee" as defined by section three of this chapter, and the employees of any such employer may, by their joint election, elect to become subject to the provisions of this chapter in the manner hereinafter provided. Such election on the part of the employer shall be made by posting notices thereof about the place where the workmen are employed, in a manner to be prescribed by rules to be adopted by the commission, and by filing with the commission a written statement, in a form to be prescribed by the commission, to the effect that he accepts the provisions of this chapter and that he adopts subject to the approval of the commission one of the methods of securing compensation to his employees prescribed in section fifty of this chapter which, when so filed with and approved by the commission as to form and method of securing compensation shall operate to subject him to the provisions of this chapter and of all acts amendatory thereof for the period of one year from the date of such approval, and thereafter without further act on his part for successive terms of one year each, unless such employer shall, at least sixty days prior to the expiration of such first or any succeeding year, file with the commission a notice in writing that he withdraws his election.

Any employee in the service of any such employer shall be deemed to have accepted, and shall be subject to the provisions of this chapter and any act amendatory thereof, if, at the time of the accident for which liability is

claimed, the employer charged with such liability has not withdrawn his election and the employee shall not at the time of entering into his contract of hire have given to his employer notice in writing that he elects not to be subject to the provisions of this chapter and filed a copy thereof with the commission, or in the event that such contract for hire was made in advance of the election of the employer, such employee shall not have given to his employer and filed with the commission within twenty days after such election notice in writing that he elects not to be subject to such provisions.

A minor employee shall be deemed *sui juris* for the purpose of making such an election.

The rights and remedies, benefits and liabilities of an employer or employee so electing to become subject to the provisions of this chapter shall thereupon become the same as they would have been had they been engaged in one of the occupations or employments enumerated herein and the words employer or employee wherever they appear in this chapter shall be construed as including an employer or employee who has so elected to become subject to its provisions. [Section 2 *am'd* by L. 1916, ch. 622.]

§ 3. DEFINITIONS. As used in this chapter, 1. "Hazardous employment" means a work or occupation described in section two of this chapter.

The courts have held the coverage of the hazardous employments broad enough to include work and occupations incidental to them. See note to § 2, group 41, for illustrative cases. See also *Larsen v. Paine Drug Co.*, 169 App. Div. 138; affirmed by the Court of Appeals, May 12, 1916; *McQueeney v. Sutphen & Myer*, 167 App. Div. 528; *Kohler v. Frohmann*, 167 App. Div. 533. Such incidentalness has been declared not evident in *Newman v. Newman*, 169 App. Div. 745, and *Gleisner v. Gross & Herbener*, 170 App. Div. 37. Compare also *Aylesworth v. Phoenix Cheese*

Co., 170 App. Div. 34, and Sickles v. Ballston R. S. Co., 171 App. Div. 108. The Gleisner case draws the distinction between incidentalness and non-incidentalness. This incidental coverage has been broadened further by the amendment of L. 1916, ch. 622, inserting the phrase "principal business" in § 3, subd. 4, below.

2. "Commission" means the state industrial commission, as constituted by this chapter. [*Subd. 2 am'd by L. 1916, ch. 622.*]

3. "Employer," except when otherwise expressly stated, means a person, partnership, association, corporation, and the legal representatives of a deceased employer, or the receiver or trustee of a person, partnership, association or corporation, employing workmen in hazardous employments including the state and a municipal corporation or other political subdivision thereof. [*Subd. 3 am'd by L. 1914, ch. 316.*]

Compare § 2, group 43, § 3, subds. 4, 5; § 54, subd. 6.

A number of accidents have involved a doubt as to which of two employers ought to pay the compensation. In the leading case of Dale v. Saunders Bros., 171 App. Div. 528; 218 N. Y. 59, the Appellate Division held that the fact that the special employer might be liable for compensation did not absolve the general employer and the Court of Appeals held that the question whose employee the injured person was belonged under § 20 solely to the Commission as a matter of fact, the courts not having jurisdiction. For other cases consult S. D. R., vol. 2, pp. 475, 480; vol. 4, p. 337; vol. 6, pp. 310, 386; no. 37, p. 102.

4. "Employee" means a person engaged in one of the occupations enumerated in section two or who is in the service of an employer whose principal business is that of carrying on or conducting a hazardous employment upon the premises or at the plant, or in the course of his employment away from the plant of his employer; and shall not include farm laborers or domestic servants. [*Subd. 4 am'd by L. 1916, ch. 622.*]

The word "engaged" has been interpreted in the case of an employee injured immediately after quitting work: *De Voe v. N. Y. State Railways*, 169 App. Div. 472, affirmed by the Court of Appeals, June 6, 1916. Commission rulings in similar cases of coming to or leaving work may be consulted in *S. D. R.*, vol. 1, pp. 424, 429; vol. 5, p. 438; vol. 6, pp. 308, 339, 403.

For distinction between an independent contractor and an employee see *Rheinwald v. Builders' Brick & Supply Co.*, *S. D. R.*, vol. 1, p. 417; 168 App. Div. 425; and *Powley v. Vivian & Co.*, *S. D. R.*, vol. 3, p. 366, 169; App. Div. 170. The Commission has made a new ruling in the *Rheinwald* case, *S. D. R.*, no. 40, p. 67, Feb. 16, 1916, from which appeal has been taken to the courts.

An accident to an employee occurring without the State is compensatable: *Post v. Burger & Gohlke*, 216 N. Y. 544; *Spratt v. Sweeney & Gray Co.*, 168 App. Div. 403; affirmed, 216 N. Y. 763; but compare *Garner v. Horseheads Construction Co.*, 171 App. Div. 66, where the injured employee's contract of employment related solely to work to be performed outside the State, and *Lloyd v. Power Specialty Co.*, *S. D. R.*, no. 38, p. 78, where the injured employee neither resided in, nor was injured in New York State, though his contract of employment had been made there.

An injured employee may have compensation, though he has made false statements in obtaining his employment: *Kenny v. Union Railway Co.*, 166 App. Div. 497; and though he is also an officer or stockholder, or both, of his employer company; *Cantor v. Rubin Musicant Co.*, *S. D. R.*, vol. 3, p. 392; *Kennedy v. Kennedy Manufacturing & Engineering Co.*, *S. D. R.*, no. 37, p. 107. Compare *Beckmann v. Oelerich*, argued in App. Div. May 3, 1916. The amendment by L. 1916, ch. 622, adding § 54, subd. 6, below, is in line with the opinions cited in this second instance.

5. "Employment" includes employment only in a trade, business or occupation carried on by the employer for pecuniary gain, except where the employer and his employees have by their joint election elected to become subject to the provisions of this chapter as provided in section two. [*Subd. 5 am'd by L. 1916, ch. 622.*]

Another exception added by L. 1916, ch. 622, as new group 43 of § 2, extends the right of compensation to state and municipal employees in hazardous employments not conducted for pecuniary gain.

In *Mihm v. Hussey*, 169 App. Div. 742, the case of a wholesale merchant storing his own goods, the court held that storage other than for hire was not carried on for pecuniary gain. The effect of this decision as a precedent appears to be met by the amendment of 1916 to § 2, group 29, which see.

A macaroni company casually employing a carpenter to put in a partition is not carrying on the carpentry business for profit and, therefore, an accident to the carpenter is not compensatable: *Bargey v. Massaro Macaroni Co.*, 170 App. Div. 103; affirmed by the Court of Appeals, June 16, 1916.

6. "Compensation" means the money allowance payable to an employee or to his dependents as provided for in this chapter, and includes funeral benefits provided therein.

7. "Injury" and "personal injury" mean only accidental injuries arising out of and in the course of employment and such disease or infection as may naturally and unavoidably result therefrom.

On the ground that they arose out of and in the course of employment the courts have held the following injuries compensatable: injury while seeking shelter from storm: *Moore v. Lehigh Valley R. R. Co.*, 169 App. Div. 177; injury from contact with poison ivy: *Plass v. Central New England Ry. Co.*, 169 App. Div. 826; injury by the employee's own motor cycle used by him for going to and from his employer's jobs: *Kingsley v. Donovan*, 169 App. Div. 828; injury due to assault connected with dispute about employment, methods of work, etc.: *Yume v. Knickerbocker Portland Cement Co.*, S. D. R., vol. 3, p. 353; 169 App. Div. 905; 216 N. Y. 653; *Harnett v. Steen Building Co.*, 169 App. Div. 905; 216 N. Y. 101; *Heitz v. Ruppert Brewery Co.*, Court of Appeals, May 2, 1916; *James v. Witherbee-Sherman & Co.*, S. D. R., vol. 2, p. 483; injury while going to rescue of another workman: *Waters v. Taylor Co.*, Court of Appeals, May 12, 1916; *Martucci v. Hills Bros. Co.*, 171 App.

Div. 370. Injuries due to sportive acts or horseplay between employees are not compensatable: *De Filippis v. Falkenburg*, 170 App. Div. 153. The Court of Appeals, June 16, 1916, reversed an order of the Appellate Division and dismissed a compensation claim for injury due to taking poison by mistake for medicine: *O'Neil v. Carley Heater Co.*, S. D. R., vol. 6, p. 314.

The subtle connections of accidental injury with ensuing infection or disease would seem to offer a wide and varied field for controversy as to facts. Compare note on evidence under § 68. The Commission has awarded compensation for disability of a hoist runner who jumped into a river to escape being struck by a broken timber and thereby contracted a cold that developed into pulmonary tuberculosis, S. D. R., vol. 5, p. 381 (*Rist v. Larkin & Sangster*, affirmed, 171 App. Div. 71); for deaths from delirium tremens, 169 App. Div. 450; S. D. R., vol. 5, p. 380; vol. 6, p. 401, no. 39, p. 62; for death of an electrotype finisher from angina pectoris due to exhaustion from prolonged over-exertion, S. D. R., vol. 3, p. 395; for insanity of an elevated railway motorman caused by the shock of a collision, S. D. R., vol. 5, pp. 371, 374; for infection in the finger of a cloak model due to the prick of a pin while she was trying on an unfinished garment, S. D. R., vol. 5, p. 385; for infection in a laceration on the head of a subway worker caused by the falling of a beam, S. D. R., vol. 6, p. 394; for anthrax contracted by a trimmer of skins in a tannery through an accidental abrasion in his cheek, S. D. R., vol. 6, p. 388; for death of a street railway process server from gangrenous diabetes resultant from a fellow passenger's treading upon his toes while he was returning to the office on one of his employer's cars, S. D. R., no. 37, p. 97; no. 39, p. 59; and for death of a driver from tetanus as the result of a wound in the foot by a rusty nail, S. D. R., vol. 6, p. 355; no. 38, p. 76.

The Commission, on ground of the lack of evidence, has denied benefits to widows for the deaths of their husbands from the following diseases: blood poisoning claimed to have been due to rupture of the mucous membrane inside of the nose, permitting the entrance of germs, the rupture having been caused by an accidental blow from a container, S. D. R., vol. 6, p. 336; tubercular trouble claimed to have been hastened by the fracture of a leg, S. D. R., vol. 6, p. 349; intestinal ulcers claimed to have been caused by crushing of the body against a truck, S. D. R., vol. 6, p. 304; lobar pneumonia claimed to have been due to

weakness caused by the amputation of a finger, S. D. R., vol. 6, p. 383; and a paralytic stroke or an embolism claimed to have resulted from severe vibration of a compressed air drill, S. D. R., no. 37, p. 100.

8. "Death" when mentioned as a basis for the right to compensation means only death resulting from such injury.

9. "Wages" means the money rate at which the service rendered is recompensed under the contract of hiring in force at the time of the accident, including the reasonable value of board, rent, housing, lodging or similar advantage received from the employer.

For the use of wages as the basis of compensation, see §§ 14, 15, 101, 102, 113.

10. "State fund" means the state insurance fund provided for in article five of this chapter.

11. "Child" shall include a posthumous child and a child legally adopted prior to the injury of the employee; and a stepchild dependent upon the deceased. [*Subd. 11 am'd by L. 1916, ch. 622.*]

12. "Insurance carrier" shall include the state fund, stock corporations or mutual associations with which employers have insured, and employers permitted to pay compensation directly under the provisions of subdivision three of section fifty.

13. "Manufacture," "construction," "operation" and "installation" shall include "repair," "demolition" and "alteration." [*Subd. 13 added by L. 1916, ch. 622.*]

ARTICLE 2

COMPENSATION

Section 10. Liability for compensation.

11. Alternative remedy.

12. Compensation not allowed for first two weeks.
13. Treatment and care of injured employees.
14. Weekly wages basis of compensation.
15. Schedule in case of disability.
16. Death benefits.
17. Aliens.
18. Notice of injury.
19. Medical examination.
20. Determination of claims for compensation.
21. Presumptions.
22. Modification of award.
23. Appeals from the commission.
24. Costs and fees.
25. Compensation, how payable.
26. Enforcement of payment in default.
27. Depositing future payments.
28. Limitation of right to compensation.
29. Subrogation to remedies of employee.
30. Revenues or benefits from other sources not to affect compensation.
31. Agreement for contribution by employee void.
32. Waiver agreements void.
33. Assignments; exemptions.
34. Preferences.

§ 10. LIABILITY FOR COMPENSATION.—Every employer subject to the provisions of this chapter shall pay or provide as required by this chapter compensation according to the schedules of this article for the disability or death of his employee resulting from an accidental personal injury sustained by the employee arising out of and in the course of his employment, without regard to fault as a cause of such injury, except where the injury is occasioned by the willful intention of the injured employee to bring about the injury or death of himself or of another, or where the injury results solely from the intoxication of the injured employee while on duty. Where the injury is occasioned by the willful intention of the injured employee to bring about the injury or death of himself or of

another, or where the injury results solely from the intoxication of the injured employee while on duty, neither the injured employee nor any dependent of such employee shall receive compensation under this chapter.

For decisions interpreting the phrases "arising out of" and "in the course of" compare notes to § 3, subd. 7.

§ 11. ALTERNATIVE REMEDY.—The liability of an employer prescribed by the last preceding section shall be exclusive and in place of any other liability whatsoever, to such employee, his personal representatives, husband, parents, dependents or next of kin, or any one otherwise entitled to recover damages, at common law or otherwise on account of such injury or death, except that if an employer fail to secure the payment of compensation for his injured employees and their dependents as provided in section fifty of this chapter, an injured employee, or his legal representative in case death results from the injury, may, at his option, elect to claim compensation under this chapter, or to maintain an action in the courts for damages on account of such injury; and in such an action it shall not be necessary to plead or prove freedom from contributory negligence nor may the defendant plead as a defense that the injury was caused by the negligence of a fellow servant nor that the employee assumed the risk of his employment, nor that the injury was due to the contributory negligence of the employee. [*As am'd by L. 1914, ch. 316; and L. 1916, ch. 622.*]

L. 1916, ch. 622, harmonizes § 11 with § 52 by inserting the phrase "or legal representatives" in § 52. Compare *Dearborn v. Peugeot Auto Import Co.*, 170 App. Div. 93, which holds that the widow of an employee need not qualify as administratrix or executrix in order to make the election permitted by § 11.

The amendment of § 11 effected by L. 1916, ch. 622, should be read in the light of *Shinnick v. Clover Farms Co.*, 169 App.

Div. 236, and *Shanahan v. Monarch Engineering Co.*, 92 Misc. 466. Compare also § 53, and clause relative to disfigurement, added to § 15, subd. 3, by L. 1916, ch. 622.

For the General Employers' Liability Law, see article 14 of the Labor Law. See also §§ 29 and 53 of the Workmen's Compensation Law; Liability of Railway Companies, Railroad Law, § 64; Damages for Injuries Causing Death, Constitution of New York, Art. 1, § 18; and Code of Civil Procedure, § 1902; and Criminal Liability for Negligence, Penal Law, §§ 1052, 1893.

§ 12. COMPENSATION NOT ALLOWED FOR FIRST TWO WEEKS.—No compensation shall be allowed for the first fourteen days of disability, except the benefits provided for in section thirteen of this chapter.

§ 13. TREATMENT AND CARE OF INJURED EMPLOYEES.—The employer shall promptly provide for an injured employee such medical, surgical or other attendance or treatment, nurse and hospital service, medicines, crutches and apparatus as may be required or be requested by the employee, during sixty days after the injury. If the employer fail to provide the same, the injured employee may do so at the expense of the employer. The employee shall not be entitled to recover any amount expended by him for such treatment or services unless he shall have requested the employer to furnish the same and the employer shall have refused or neglected to do so. All fees and other charges for such treatment and services shall be subject to regulation by the commission as provided in section twenty-four of this chapter, and shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living.

See also § 24.

In *Keigher v. General Electric Co.*, decided in May, 1916, the Appellate Division held that the employer was not liable for physician's services because the employee had rejected the physician selected by the employer.

In *Morey v. Worden*, S. D. R., vol. 2, p. 297, the injured employee did not request treatment within the sixty-day limit, but the employer had notice that treatment was necessary; the commission, therefore, awarded the amount expended for treatment.

§ 14. WEEKLY WAGES BASIS OF COMPENSATION.—Except as otherwise provided in this chapter, the average weekly wages of the injured employee at the time of the injury shall be taken as the basis upon which to compute compensation or death benefits, and shall be determined as follows:

1. If the injured employee shall have worked in the employment in which he was working at the time of the accident, whether for the same employer or not, during substantially the whole of the year immediately preceding his injury, his average annual earnings shall consist of three hundred times the average daily wage or salary which he shall have earned in such employment during the days when so employed;

2. If the injured employee shall not have worked in such employment during substantially the whole of such year, his average annual earnings shall consist of three hundred times the average daily wage or salary which an employee of the same class working substantially the whole of such immediately preceding year in the same or in a similar employment in the same or a neighboring place shall have earned in such employment during the days when so employed;

3. If either of the foregoing methods of arriving at the annual average earnings of an injured employee cannot reasonably and fairly be applied, such annual earnings shall be such sum as, having regard to the previous earnings of the injured employee and of other employees of the same or most similar class, working in the same or most similar employment in the same or neighboring lo-

310 COMPENSATION INSURANCE

cality, shall reasonably represent the annual earning capacity of the injured employee in the employment in which he was working at the time of the accident ;

4. The average weekly wages of an employee shall be one-fifty-second part of his average annual earnings ;

5. If it be established that the injured employee was a minor when injured, and that under normal conditions his wages would be expected to increase, the fact may be considered in arriving at his average weekly wages.

In connection with subd. 5 compare *Kilberg v. Vitch*, 171 App. Div. 89.

Wages are defined by § 3, subd. 9; for other provisions compare §§ 15, 101, 102, 113.

Custom tends to fix the average daily wage: *Fredenburg v. Empire U. Railways*, 168 App. Div. 618.

Subdivision 5 of section 15, following, establishes maximum and minimum limits for the use of the average weekly wages as the basis of compensation under § 15, and, also, according to the ruling of the Commission in *Morey v. Worden*, S. D. R., vol. 2, p. 494, absolutely excludes use of the average weekly wages as the basis of compensation for loss of hand, arm, foot, leg, or eye. For loss of these members, the wages at the time of the injury, and not the average weekly wages, are the basis.

§ 15. SCHEDULE IN CASE OF DISABILITY.—The following schedule of compensation is hereby established:

1. Total permanent disability. In case of total disability adjudged to be permanent, sixty-six and two-thirds per centum of the average weekly wages shall be paid to the employee during the continuance of such total disability. Loss of both hands, or both arms, or both feet, or both legs, or both eyes, or of any two thereof shall, in the absence of conclusive proof to the contrary, constitute permanent total disability. In all other cases permanent total disability shall be determined in accordance with the facts.

The compensation of an employee who loses any two of the members named in this section by different accidents occurring at different times, *e. g.*, the loss of one hand in 1909 and the loss of the other in 1916, is determined by § 15, subd. 6, which see.

2. Temporary total disability. In case of temporary total disability, sixty-six and two-thirds per centum of the average weekly wages shall be paid to the employee during the continuance thereof, but not in excess of three thousand five hundred dollars, except as otherwise provided in this chapter.

"Except as otherwise provided," compare § 13.

On the subject of malingering, compare *Glidder v. Haliver*, S. D. R., vol. 6, p. 366.

Concurrent awards for temporary total disability and permanent partial disability are not within the intent of the law: *Fredenburg v. Empire U. Railways*, 168 App. Div. 618.

3. Permanent partial disability. In case of disability partial in character but permanent in quality the compensation shall be sixty-six and two-thirds per centum of the average weekly wages and shall be paid to the employee for the period named in the schedule as follows:

Thumb. For the loss of a thumb, sixty weeks.

First finger. For the loss of a first finger, commonly called index finger, forty-six weeks.

Second finger. For the loss of a second finger, thirty weeks.

Third finger. For the loss of a third finger, twenty-five weeks.

Fourth finger. For the loss of a fourth finger, commonly called the little finger, fifteen weeks.

For loss of fingers, see also below, this subdivision, under "Loss of Use."

Phalange of thumb or finger. The loss of the first pha-

lange of the thumb or finger shall be considered to be equal to the loss of one-half of such thumb or finger, and compensation shall be one-half of the amount above specified. The loss of more than one phalange shall be considered as the loss of the entire thumb or finger; provided, however, that in no case shall the amount received for more than one finger exceed the amount provided in this schedule for the loss of a hand.

The amputation of one-third of the first phalange of a finger has been held to constitute, in law, the loss of the phalange, and, therefore, the loss of half the finger: *Matter of Petrie*, 165 App. Div. 561; 215 N. Y. 335.

Great toe. For the loss of a great toe, thirty-eight weeks.

Other toes. For the loss of one of the toes other than the great toe, sixteen weeks.

Phalange of toe. The loss of the first phalange of any toe shall be considered to be equal to the loss of one-half of said toe, and the compensation shall be one-half of the amount specified. The loss of more than one phalange shall be considered as the loss of the entire toe.

Hand. The loss of a hand, two hundred and forty-four weeks.

Arm. For the loss of an arm, three hundred and twelve weeks.

Foot. For the loss of a foot, two hundred and five weeks.

Leg. For the loss of a leg, two hundred and eighty-eight weeks.

Eye. For the loss of an eye, one hundred and twenty-eight weeks.

Loss of use. Permanent loss of the use of a hand, arm, foot, leg, eye, thumb, finger, toe, or phalange, shall be considered as the equivalent of the loss of such hand,

arm, foot, leg, eye, thumb, finger, toe or phalange. [*Clause am'd by L. 1916, ch. 622.*]

Loss of fingers may constitute loss of the hand: *Rockwell v. Lewis*, 168 App. Div. 674; and loss of part of a finger, loss of the finger: *Feinman v. Albert Manufacturing Co.*, 170 App. Div. 147.

Amputations. Amputation between the elbow and the wrist shall be considered as the equivalent of the loss of a hand. Amputation between the knee and the ankle shall be considered as the equivalent of the loss of a foot. Amputation at or above the elbow shall be considered as the loss of an arm. Amputation at or above the knee shall be considered as the loss of the leg.

The compensation for the foregoing specific injuries shall be in lieu of all other compensation, except the benefits provided in section thirteen of this chapter.

In case of an injury resulting in serious facial or head disfigurement the commission may in its discretion, make such award or compensation as it may deem proper and equitable, in view of the nature of the disfigurement, but not to exceed three thousand five hundred dollars. [*Clause added by L. 1916, ch. 622.*]

Compare also § 11. The addition of this clause by L. 1916, ch. 622, should be read in the light of *Shinnick v. Clover Farms Co.*, 169 App. Div. 236.

Other cases. In all other cases in this class of disability, the compensation shall be sixty-six and two-thirds per centum of the difference between his average weekly wages and his wage-earning capacity thereafter in the same employment or otherwise, payable during the continuance of such partial disability, but subject to reconsideration of the degree of such impairment by the commission on its own motion or upon application of any party in interest.

4. Temporary partial disability. In case of temporary partial disability, except the particular cases mentioned in subdivision three of this section, an injured employee shall receive sixty-six and two-thirds per centum of the difference between his average weekly wages and his wage earning capacity thereafter in the same employment or otherwise during the continuance of such partial disability, but not to exceed when combined with his decreased earnings the amount of wages he was receiving prior to the injury, and not to exceed in total the sum of three thousand five hundred dollars, except as otherwise provided in this chapter. [*Subd. 4 am'd by L. 1916, ch. 622.*]

5. Limitation. The compensation payment under subdivisions one, two, and four and under subdivision three except in case of the loss of a hand, arm, foot, leg or eye, shall not exceed fifteen dollars per week nor be less than five dollars per week; the compensation payment under subdivision three in case of the loss of a hand, arm, foot, leg or eye, shall not exceed twenty dollars per week nor be less than five dollars a week; provided, however, that if the employee's wages at the time of injury are less than five dollars per week he shall receive his full weekly wages.

Compare note to § 14.

6. Previous disability. The fact that an employee has suffered previous disability or received compensation therefor shall not preclude him from compensation for a later injury nor preclude compensation for death resulting therefrom; but in determining compensation for the later injury or death his average weekly wages shall be such sum as will reasonably represent his earning capacity at the time of the later injury, provided, however, that an employee who is suffering from a previous disability

shall not receive compensation for a later injury in excess of the compensation allowed for such injury when considered by itself and not in conjunction with the previous disability. [*Subd. 6 am'd by L. 1915, ch. 615.*]

This proviso, added by L. 1915, ch. 615, obviates the decision in *Schwab v. Emporium Forestry Co.*, 167 App. Div. 614; 216 N. Y. Rep. 712. L. 1916, ch. 622, has made special provision for this class of cases by the addition of subd. 7, following.

7. Permanent total disability after permanent partial disability. If an employee who has previously incurred permanent partial disability through the loss of one hand, one arm, one foot, one leg, or one eye, incurs permanent total disability through the loss of another member or organ, he shall be paid, in addition to the compensation for permanent partial disability provided in this section and after the cessation of the payments for the prescribed period of weeks special additional compensation for the remainder of his life to the amount of sixty-six and two-thirds per centum of the average weekly wage earned by him at the time the total permanent disability was incurred. Such additional compensation shall be paid out of a special fund created for such purpose in the following manner: The insurance carrier shall pay to the state treasurer for every case of injury causing death in which there are no persons entitled to compensation the sum of one hundred dollars. The state treasurer shall be the custodian of this special fund, and the commission shall direct the distribution thereof. [*Subd. 7 added by L. 1916, ch. 622.*]

§ 16. DEATH BENEFITS.—If the injury causes death, the compensation shall be known as a death benefit and shall be payable in the amount and to or for the benefit of the persons following:

1. Reasonable funeral expenses not exceeding one hundred dollars;

2. If there be a surviving wife (or dependent husband) and no child of the deceased under the age of eighteen years, to such wife (or dependent husband) thirty per centum of the average wages of the deceased during widowhood (or dependent widowhood) with two years' compensation in one sum, upon remarriage; and if there be surviving child or children of the deceased under the age of eighteen years, the additional amount of ten per centum of such wages for each such child until of the age of eighteen years; in case of the subsequent death of such surviving wife (or dependent husband) any surviving child of the deceased employee, at the time under eighteen years of age, shall have his compensation increased to fifteen per centum of such wages, and the same shall be payable until he shall reach the age of eighteen years; provided that the total amount payable shall in no case exceed sixty-six and two-thirds per centum of such wages. The commission may in its discretion require the appointment of a guardian for the purpose of receiving the compensation of a minor child. In the absence of such a requirement by the commission the appointment of a guardian for such purposes shall not be necessary. [*Subd. 2 am'd by L. 1916, ch. 622.*]

In connection with the amendment of L. 1916, ch. 622, to this subdivision, regulating appointment of a guardian, compare *Woodcock v. Walker*, 170 App. Div. 4.

3. If there be surviving child or children of the deceased under the age of eighteen years, but no surviving wife (or dependent husband) then for the support of each such child until of the age of eighteen years, fifteen per centum of the wages of the deceased, provided that the

aggregate shall in no case exceed sixty-six and two-thirds per centum of such wages.

4. If there be no surviving wife (or dependent husband) or child under the age of eighteen years or if the amount payable to surviving wife (or dependent husband) and to children under the age of eighteen years shall be less in the aggregate than sixty-six and two-thirds per centum of the average wages of the deceased, then for the support of grandchildren or brothers and sisters under the age of eighteen years, if dependent upon the deceased at the time of the accident, fifteen per centum of such wages for the support of each such person until of the age of eighteen years; and for the support of each parent, or grandparent, of the deceased if dependent upon him at the time of the accident, twenty-five per centum of such wages during such dependency. But in no case shall the aggregate amount payable under this subdivision exceed the difference between sixty-six and two-thirds per centum of such wages, and the amount payable as hereinbefore provided to surviving wife (or dependent husband) or for the support of surviving child or children.

Any excess of wages over one hundred dollars a month shall not be taken into account in computing compensation under this section. All questions of dependency shall be determined as of the time of the accident. [*Subd. 4 am'd by L. 1916, ch. 622.*]

The insertion by L. 1916, ch. 622, of the words "If there be no surviving wife (or dependent husband) or child under the age of eighteen years or" confirms the decision in *Friscia v. Drake Bros. Co.*, 167 App. Div. 496, which decision also holds that parents may be dependent upon the wages of minor children. L. 1916, ch. 622, increases the amount payable to parent or grandparent.

Dependents supported by the decedent employee voluntarily,

partially or indirectly, are entitled to death benefits: *Walz v. Holbrook, Cabot & Rollins Corp.*, 170 App. Div. 6.

A ruling of the State Industrial Commission that a claimant is dependent, if supported by any evidence, is final and non-reviewable by the courts: *Hendricks v. Seeman Bros.*, 170 App. Div. 133. For a ruling denying a mother's dependency, see *Williams v. Coney Island Construction Co.*, S. D. R., vol. 6, p. 346.

In computing wages as the basis of benefits to the dependents of a deceased minor, allowance may be made under § 14, subd. 5, for the minor's expectation of wage increase: *Kilberg v. Vitch*, 171 App. Div. 89.

§ 17. ALIENS.—Compensation under this chapter to aliens not residents (or about to become nonresidents) of the United States or Canada, shall be the same in amount as provided for residents, except that dependents in any foreign country shall be limited to surviving wife and child or children, or, if there be no surviving wife or child or children, to surviving father or mother, or grandfather or grandmother, whom the employee has supported, either wholly or in part, for the period of one year prior to the date of the accident, and except that the commission may, at its option, or upon the application of the insurance carrier, shall, commute all future installments of compensation to be paid to such aliens, by paying or causing to be paid to them one-half of the commuted amount of such future installments of compensation as determined by the commission. [*As am'd by L. 1916, ch. 622.*]

Compare also § 25. For an account of the Commission's practice relative to lump sum awards, see monthly Bulletin of the State Industrial Commission, February, 1916, no. 5, pp. 2, 3.

§ 18. NOTICE OF INJURY.—Notice of an injury for which compensation is payable under this chapter shall be given to the commission and to the employer within

ten days after disability, and also in case of the death of the employee resulting from such injury, within thirty days after such death. Such notice may be given by any person claiming to be entitled to compensation, or by some one in his behalf. The notice shall be in writing, and contain the name and address of the employee and state in ordinary language the time, place, nature and cause of the injury, and be signed by him or by a person on his behalf or, in case of death, by any one or more of his dependents or by a person in their behalf. It shall be given to the commission by sending it by mail, by registered letter, addressed to the commission at its office. It shall be given to the employer by delivering it to him or sending it by mail, by registered letter, addressed to the employer at his or its last known place of residence; provided that, if the employer be a partnership then such notice may be so given to any one of the partners, and if the employer be a corporation, then such notice may be given to any agent or officer thereof upon whom legal process may be served, or any agent in charge of the business in the place where the injury occurred. The failure to give such notice, unless excused by the commission either on the ground that notice for some sufficient reason could not have been given, or on the ground that the state fund, insurance company, or employer, as the case may be, has not been prejudiced thereby, shall be a bar to any claim under this chapter.

In regard to evidence of accidental injury, §§ 18, 21 and 111 are to be read together. Instances of the Commission's excuse of the employer for failure to give timely notice are: *Rist v. Larkin & Sangster*, S. D. R., vol. 5, p. 381, and *Birn v. Bradley Contracting Co.*, S. D. R., vol. 6, p. 319; instances of its refusal to excuse are: *Opitz v. Tietze*, S. D. R., vol. 6, p. 347, and *Graf v. Brooklyn Rapid Transit Co.*, S. D. R., no. 37, p. 105.

§ 19. MEDICAL EXAMINATION.—An employee injured claiming or entitled to compensation under this chapter shall, if requested by the commission, submit himself for medical examination at a time, and from time to time, at a place reasonably convenient for the employee, and as may be provided by the rules of the commission. If the employee or the insurance carrier request he shall be entitled to have a physician or physicians of his own selection to be paid by him present to participate in such examination. If an employee refuse to submit himself to examination, his right to prosecute any proceeding under this chapter shall be suspended, and no compensation shall be payable, for the period of such refusal.

§ 20. DETERMINATION OF CLAIMS FOR COMPENSATION.—At any time after the expiration of the first fourteen days of disability on the part of an injured employee, or at any time after his death, a claim for compensation may be presented to the employer and if rejected or if within ten days after presentation, a report containing an agreement for compensation be not made and filed with the commission as provided by this section, the claim may be presented to the commission. The commission shall have full power and authority to determine all questions in relation to the payment of claims presented to it for compensation under the provisions of this chapter. The commission shall make or cause to be made such investigations as it deems necessary, and upon application of either party, shall order a hearing, and within thirty days after a claim for compensation is submitted under this section, or such hearing closed, shall make or deny an award, determining such claim for compensation, and file the same in the office of the commission, together with a statement of its conclusions of fact and rulings of law. The commission may before making an award, require

the claimant to appear before an arbitration committee appointed by it and consisting of one representative of employees, one representative of employers, and either a member of the commission or a person specially deputed by the commission to act as chairman, before which the evidence in regard to the claim shall be adduced and by which it shall be considered and reported upon. Immediately after such filing the commission shall send to the parties a copy of the decision. Upon a hearing pursuant to this section either party may present evidence and be represented by counsel. The decision of the commission shall be final as to all questions of fact, and, except as provided in section twenty-three, as to all questions of law. When a claim is presented to an employer, and the employer and employee, or in case of death, his principal dependent, enter into an agreement for the payment of compensation therefor pursuant to this chapter, a joint report of such claim containing such agreement shall be made to the commission upon a form prepared by it and signed by the employer and employee, or in case of death his principal dependent. The commission shall examine such report and approve the same when the terms are strictly in accordance with this chapter and such approval shall constitute an award. However, the commission may make an award in the manner provided in this section in any case, and if the terms of the award vary from the joint report, the employer shall comply with the award. In case of unfair dealing or of bad faith on the part of the employer under this section, the commission may impose a penalty of not more than ten per centum of the award. [*As am'd by L. 1915, ch. 167.*]

Even when the evidence is meagre, the court holds that it should not interfere with a decision of the Commission. *Powley v. Vivian & Co.*, 169 App. Div. 177.

Relative to court review, compare §§ 23 and 68.

For an instance of modification of an agreement by the Commission, compare *Rudewicz v. Wendell & Evans Co.*, S. D. R., vol. 6, p. 408.

§ 20-a. PAYMENT OF MONEYS IN ADVANCE OF AWARD BY COMMISSION.—Any employer shall upon the making of the agreement provided for in section twenty advance to any injured employee or to the principal dependent of a deceased employee, the payment or payments provided for in the agreement, in return for which he shall receive a receipt on a form supplied by the commission and signed by the person receiving the money, which receipt shall specifically state in what capacity the signer acted while so receiving such money; such receipt shall be forwarded to the commission within forty-eight hours after date of its issuance and the sum stated on its face shall be returned to said employer as provided in section twenty-five.

Prior to the making of said agreement or in the event of no agreement, any employer may at his option advance to any injured employee or to the principal dependent of a deceased employee any sum of money, in return for which he shall receive a receipt on a form supplied by the commission and signed by the person receiving the money, which receipt shall specifically state in what capacity the signer acted while so receiving such money; such receipt shall be forwarded to the commission within forty-eight hours after date of its issuance. Should any agreement or award be made the sum so stated on the face of the receipt shall be credited to the payment under the award or agreement and shall be repaid as hereinbefore provided. Any money so advanced shall be at the employer's risk. [*Added by L. 1915, ch. 168.*]

§ 21. PRESUMPTIONS.—In any proceeding for the enforcement of a claim for compensation under this chapter,

it shall be presumed in the absence of substantial evidence to the contrary

1. That the claim comes within the provisions of this chapter;

2. That sufficient notice thereof was given;

3. That the injury was not occasioned by the willful intention of the injured employee to bring about the injury or death of himself or of another;

4. That the injury did not result solely from the intoxication of the injured employee while on duty.

The constitutionality of the presumption in subd. 1 is upheld in *McQueeney v. Sutphen & Myer*, 167 App. Div. 528.

Defendant must offer evidence to the Commission; otherwise the claim is presumptively legal: *McQueeney v. Sutphen & Myer*, 167 App. Div. 528; *Kohler v. Frohmann*, 167 App. Div. 533; *Powley v. Vivian & Co.*, 169 App. Div. 177.

The presumptions of § 21 are as operative and binding in the court upon appeal as in the Commission: *Rheinwald v. Builders' Brick & Supply Co.*, 168 App. Div. 433; compare also *White v. N. Y. Central & H. R. R. R. Co.*, S. D. R., vol. 2, p. 477, as affirmed by the courts without opinion, 169 App. Div. 903; 216 N. Y. 653. The Commission may not presume that an accident happened: *Hyland v. Winant*, S. D. R., vol. 6, p. 304.

§ 22. MODIFICATION OF AWARD.—Upon its own motion or upon the application of any party in interest, on the ground of a change in conditions, the commission may at any time review any award, and, on such review, may make an award ending, diminishing or increasing the compensation previously awarded, subject to the maximum or minimum provided in this chapter, and shall state its conclusions of fact and rulings of law, and shall immediately send to the parties a copy of the award. No such review shall affect such award as regards any moneys already paid.

Compare § 74.

§ 23. APPEALS FROM THE COMMISSION.—An award or decision of the commission shall be final and conclusive upon all questions within its jurisdiction, as against the state fund or between the parties, unless within thirty days after a copy of such award or decision has been sent to the parties, an appeal be taken to the appellate division of the supreme court of the third department. The commission may also, in its discretion, on the application of either party, certify to such appellate division of the supreme court, questions of law involved in its decision. Such appeals and the questions so certified shall be heard in a summary manner and shall have precedence over all other civil cases in such court. The commission shall be deemed a party to every such appeal, and the attorney-general, without extra compensation, shall represent the commission thereon. An appeal may also be taken to the court of appeals in all cases where the decision of the appellate division is not unanimous and by the consent of the appellate division or a judge of the court of appeals where the decision of the appellate division is unanimous in the same manner and subject to the same limitations not inconsistent herewith as is now provided in civil actions. It shall not be necessary to file exceptions to the rulings of the commission. The commission shall not be required to file a bond upon an appeal by it to the court of appeals. Otherwise such appeals shall be subject to the law and practice applicable to appeals in civil actions. Upon the final determination of such an appeal, the commission shall make an award or decision in accordance therewith. [*As am'd by L. 1916, ch. 622.*]

Prior to amendment of § 23 by L. 1916, ch. 622, an employer insured in the state fund could not appeal from the Commission to the courts: *Crockett v. International Railway Co.*, 170 App. Div. 122. The amendment of § 23 by L. 1916, ch. 622, regulating appeals from the Appellate Division to the Court of Appeals may

be read in connection with *Harnett v. Steen Co.*, 216 N. Y. 101. The law governing appeals in civil actions is the Code of Civil Procedure, §§ 190, 191, as based on¹ the Constitution of New York, Art. 6, §§ 1, 9. The amendment relative to filing of exceptions, etc., is in line with the decision in *Kenny v. Union Railway Co.*, 166 App. Div. 497. The right of appeal is restricted by the sentence in § 20, which declares: "The decision of the Commission shall be final as to all questions of fact, and except as provided in section twenty-three, as to all questions of law." For the right of the courts to review the evidence in compensation cases, compare note to § 68.

§ 24. COSTS AND FEES.—If the commission or the court before which any proceedings for compensation or concerning an award of compensation have been brought, under this chapter, determines that such proceedings have not been so brought upon reasonable ground, it shall assess the whole cost of the proceeding upon the party who has so brought them. Claims for legal services in connection with any claim arising under this chapter, and claims for services or treatment rendered or supplies furnished pursuant to section thirteen of this chapter, shall not be enforceable unless approved by the commission. If so approved, such claim or claims shall become a lien upon the compensation awarded, but shall be paid therefrom only in the manner fixed by the commission.

See also § 13.

A physician cannot maintain an action against an employer under an employee's assignment of compensation for medical services: *Bloom v. Jaffe*, 94 Misc. 222.

§ 25. COMPENSATION, HOW PAYABLE.—Compensation under the provisions of this chapter shall be payable periodically by the employer, in accordance with the method of payment of the wages of the employee at the time of his injury or death, and shall be so provided for in any award; but the commission may determine that any pay-

ments may be made monthly or at any other period, as it may deem advisable. The state or insurance corporation in which an employer is insured shall, within ten days after demand by such employer and on the presentation of evidence of payment of compensation in accordance with this chapter, reimburse the employer therefor. An injured employee, or in case of death his dependents or personal representative, shall give receipts for payment of compensation to the employer paying the same and such employer shall forward receipts therefor promptly to the commission. The commission, whenever it shall so deem advisable, may commute such periodical payments to one or more lump sum payments to the injured employee or, in case of death, his dependents, provided the same shall be in the interest of justice. [*As am'd by L. 1915, ch. 167.*]

Compare § 17.

§ 26. ENFORCEMENT OF PAYMENT IN DEFAULT.—If payment of compensation, or an installment thereof, due under the terms of an award, be not made by the employer within ten days after the same is due, the insurance carrier shall be liable therefor and if not paid within ten days after demand by the injured employee or in case of death his dependents or by the commission, the amount of such payment shall constitute a liquidated claim for damages against the employer, self-insurer or insurance corporation, which with an added penalty of fifty per centum may be recovered in an action to be instituted by the commission in the name of the people of the state. An employer who negligently or intentionally defaults in payment of compensation in the first instance under this chapter shall be liable to a penalty of not more than ten per centum of the amount of such compensation, notwithstanding the fact that the insurance corporation or state

fund subsequently pays the compensation as provided in this section. If such default be made in the payment of an installment of compensation and the whole amount of such compensation be not due, the commission may, if the present value of such compensation be computable, declare the whole amount thereof due, and recover the amount thereof with the added penalties, as provided by this section. Any such action may be compromised by the commission or may be prosecuted to final judgment as, in the discretion of the commission, may best serve the interests of the persons entitled to receive the compensation or the benefits. Compensation recovered under this section shall be disbursed by the commission to the persons entitled thereto in accordance with the award. A penalty recovered pursuant to this section shall be paid into the state treasury, and be applicable to the expenses of the commission.

In case of default by the employer in the payment of any compensation due under an award for the period of thirty days after payment is due and payable, any party in interest may file with the county clerk for the county in which the injury occurred, a certified copy of a decision of the state industrial commission awarding compensation, or ending, diminishing or increasing compensation previously awarded, from which no appeal has been taken within the time allowed therefor, and thereupon judgment must be entered in the supreme court by the clerk of such county in conformity therewith immediately upon the filing of such decision. Such decree or judgment shall be entered in the same manner and shall have the same effect and all proceedings in relation thereto shall thereafter be the same, as though said decree or judgment had been rendered in a suit duly heard and determined by the supreme court, except that

there shall be no appeal therefrom. The court upon the filing with it of a certified copy of a decision of the state industrial commission ending, diminishing or increasing compensation previously awarded, shall revoke or modify its prior decree or judgment so that it will conform to said decision. Neither the commission nor any party in interest shall be required to pay any fee to any public officer for filing or recording any paper or instrument executed in pursuance of this section. [*As am'd by L. 1916, ch. 622.*]

§ 27. DEPOSITING FUTURE PAYMENTS.—If an award under this chapter requires payment of compensation by an employer or an insurance corporation in periodical payments, and the nature of the injury makes it possible to compute the present value of all future payments with due regard for life contingencies, the commission may, in its discretion, at any time, compute and permit or require to be paid into the state fund an amount equal to the present value of all unpaid compensation for which liability exists, together with such additional sum as the commission may deem necessary for a proportionate payment of expenses of administering the fund so created, such moneys to constitute an aggregate trust fund; and thereupon such employer or insurance corporation shall be discharged from any further liability under such award and payment of the same shall be assumed by the trust fund so created.

The moneys so paid into this fund shall constitute an aggregate trust fund and shall be kept separate and apart from all other moneys of the state fund, and shall not be liable for any expenses of administration of the state fund other than the expenses involved in the administration of such trust fund. [*As am'd by L. 1916, ch. 622.*]

§ 28. LIMITATION OF RIGHT TO COMPENSATION.—The right to claim compensation under this chapter shall be forever barred unless within one year after the injury or if death result therefrom, within one year after such death, a claim for compensation thereunder shall be filed with the commission.

§ 29. SUBROGATION TO REMEDIES OF EMPLOYEES.—If an employee entitled to compensation under this chapter be injured or killed by the negligence or wrong of another not in the same employ, such injured employee, or in case of death, his dependents, shall, before any suit or claim under this chapter, elect whether to take compensation under this chapter or to pursue his remedy against such other. Such election shall be evidenced in such manner as the commission may by rule or regulation prescribe. If he elect to take compensation under this chapter, the cause of action against such other shall be assigned to the state for the benefit of the state insurance fund, if compensation be payable therefrom, and otherwise to the person, association, corporation, or insurance carrier liable for the payment of such compensation, and if he elect to proceed against such other, the state insurance fund, person, association, corporation, or insurance carrier, as the case may be, shall contribute only the deficiency, if any, between the amount of the recovery against such other person actually collected, and the compensation provided or estimated by this chapter for such case. Such a cause of action assigned to the state may be prosecuted or compromised by the commission. A compromise of any such cause of action by the employee or his dependents at an amount less than the compensation provided for by this chapter shall be made only with the written approval of the commission, if the deficiency of compensation would be payable from the state insur-

ance fund, and otherwise with the written approval of the person, association, corporation, or insurance carrier liable to pay the same. Wherever an employee is killed by the negligence or wrong of another not in the same employ and the dependents of such employee entitled to compensation under this chapter are minors, such election to take compensation and the assignment of the cause of action against such other and such notice of election to pursue a remedy against such other shall be made by such minor, or shall be made on behalf of such minor by a parent of such minor, or by his or her duly appointed guardian, as the commission may determine by rule in each case. [*As am'd by L. 1916, ch. 622.*]

In *Winter v. Doelger Brewing Co.*, May, 1916, the Supreme Court sustained an action of the employee against his employer as a third party, though the employer had secured compensation. The building where the accident, the collapse of an elevator, occurred, was owned by the employer but was entirely disconnected with his place of business.

An employee who has elected compensation and received an award is estopped from an action for damages: *Miller v. New York Railways Co.*, 171 App. Div. 316.

An employee may maintain an action for negligence without evidencing his election under this section, but failure so to do excludes him from deficiency compensation: *Lester v. Otis Elevator Co.*, 169 App. Div. 613.

Release of a third party by the injured employee, with or without consideration, does not debar the employee from compensation or the employer's insurance carrier from an action for negligence: *Woodward v. Conklin & Son*, Appellate Division, March, 1916.

§ 30. REVENUES OR BENEFITS FROM OTHER SOURCES NOT TO AFFECT COMPENSATION.—No benefits, savings or insurance of the injured employee, independent of the provisions of this chapter, shall be considered in determining the compensation or benefits to be paid under this

chapter, except that, in case of the death of an employee of the state, a municipal corporation or any other political subdivision of the state, any benefit payable under a pension system which is not sustained in whole or in part by the contributions of the employee, may be applied toward the payment of the death benefit provided by this chapter. [*Section 30 am'd by L. 1914, ch. 316.*]

§ 31. AGREEMENT FOR CONTRIBUTION BY EMPLOYEE VOID.—No agreement by an employee to pay any portion of the premium paid by his employer to the state insurance fund or to contribute to a benefit fund or department maintained by such employer or to the cost of mutual insurance or other insurance, maintained for or carried for the purpose of providing compensation as herein required, shall be valid, and any employer who makes a deduction for such purpose from the wages or salary of any employee entitled to the benefits of this chapter shall be guilty of a misdemeanor.

§ 32. WAIVER AGREEMENTS VOID.—No agreement by an employee to waive his right to compensation under this chapter shall be valid.

A contract provision by which each party exempts the other from all acts of fault or omission is ineffective: *Powley v. Vivian & Co.*, 169 App. Div. 176.

§ 33. ASSIGNMENTS; EXEMPTIONS.—Claims for compensation or benefits due under this chapter shall not be assigned, released or commuted except as provided by this chapter, and shall be exempt from all claims of creditors and from levy, execution and attachment or other remedy for recovery or collection of a debt, which exemption may not be waived. Compensation and benefits shall be paid only to employees or their dependents.

"Except as provided," compare § 29.

Release of the employer by an administrator for a consideration does not debar dependents from compensation: *Buell v. N. Y. C. & H. R. R. Co.*, S. D. R., vol. 6, pp. 361, 377. See also note under § 29.

An employee may not assign to his physician an award of compensation for medical treatment: *Bloom v. Jaffe*, 94 Misc. 222.

§ 34. PREFERENCES.—The right of compensation granted by this chapter and any awards made thereunder shall have the same preference or lien without limit of amount against the assets of the employer as is now, or hereafter may be allowed by law for a claim for unpaid wages for labor. [*As am'd by L. 1916, ch. 622.*]

ARTICLE 3

SECURITY FOR COMPENSATION

Section 50. Security for payment of compensation.

51. Posting of notice regarding compensation.
52. Effect of failure to secure compensation.
53. Release from all liability.
54. The insurance contract.

§ 50. SECURITY FOR PAYMENT OF COMPENSATION.—An employer shall secure compensation to his employees in one of the following ways:

1. By insuring and keeping insured the payment of such compensation in the state fund, or
2. By insuring and keeping insured the payment of such compensation with any stock corporation or mutual association authorized to transact the business of workmen's compensation insurance in this state. If insurance be so effected in such a corporation or mutual association the employer shall forthwith file with the

commission, in form prescribed by it, a notice specifying the name of such insurance corporation or mutual association and such information regarding the policies as the commission may require. [*Subd. 2 am'd by L. 1916, ch. 622.*]

Mutual employers' liability and workmen's compensation corporations are governed by the insurance law, §§ 185-194, as added by L. 1913, ch. 832, and amended by L. 1915, ch. 506, and § 67, as added by L. 1914, ch. 16.

3. By furnishing satisfactory proof to the commission of his financial ability to pay such compensation for himself, in which case the commission may, in its discretion, require the deposit with the commission of securities of the kind prescribed in section thirteen of the insurance law, in an amount to be determined by the commission, to secure his liability to pay the compensation provided in this chapter. The commission shall have the authority to revoke its consent furnished under this section at any time for good cause shown.

If an employer fail to comply with this section, he shall be liable to a penalty [for the time] during which such failure continues of an amount equal to the pro rata premium which would have been payable for insurance in the state fund for such period of noncompliance to be recovered in an action brought by the commission.

The commission may, in its discretion, for good cause shown, remit any such penalty, provided the employer in default secure compensation as provided in this section. [*Subd. 3 am'd by L. 1914, ch. 316; and L. 1916, ch. 622.*]

§ 51. POSTING OF NOTICE REGARDING COMPENSATION.—Every employer who has complied with section fifty of this chapter shall post and maintain in a conspicuous place or places in and about his place or places of busi-

ness typewritten or printed notices in form prescribed by the commission, stating the fact that he has complied with all the rules and regulations of the commission and that he has secured the payment of compensation to his employees and their dependents in accordance with the provisions of this chapter.

§ 52. EFFECT OF FAILURE TO SECURE COMPENSATION.

—Failure to secure the payment of compensation shall constitute a misdemeanor and have the effect of enabling the injured employee, or in case of death, his dependents or legal representatives, to maintain an action for damages in the courts, as prescribed by section eleven of this chapter. [*As am'd by L. 1916, ch. 622.*]

Compare note to § 11.

§ 53. RELEASE FROM ALL LIABILITY.—An employer securing the payment of compensation by contributing premiums to the state fund shall thereby become relieved from all liability for personal injuries or death sustained by his employees, and the persons entitled to compensation under this chapter shall have recourse therefor only to the state fund and not to the employer. An employer shall not otherwise be relieved from the liability for compensation prescribed by this chapter except by the payment thereof by himself or his insurance carrier.

Compare amendment to § 11, effected by L. 1916, ch. 622; compare also, on question of protection, *Jensen v. Southern Pacific Co.*, 215 N. Y. 514; *McQueeney v. Sutphen & Myer*, 167 App. Div. 528; *Crockett v. International Railway Co.*, 170 App. Div. 122.

§ 54. THE INSURANCE CONTRACT.—I. Right of recourse to the insurance carrier. Every policy of insurance covering the liability of the employer for compensation issued by a stock company or by a mutual associa-

tion authorized to transact workmen's compensation insurance in this state shall contain a provision setting forth the right of the commission to enforce in the name of the people of the state of New York for the benefit of the person entitled to the compensation insured by the policy either by filing a separate application or by making the insurance carrier a party to the original application, the liability of the insurance carrier in whole or in part for the payment of such compensation; provided, however, that payment in whole or in part of such compensation by either the employer or the insurance carrier shall to the extent thereof be a bar to the recovery against the other of the amount so paid.

2. Knowledge and jurisdiction of the employer extended to cover the insurance carrier. Every such policy shall contain a provision that, as between the employee and the insurance carrier, the notice to or knowledge of the occurrence of the injury on the part of the employer shall be deemed notice or knowledge, as the case may be, on the part of the insurance carrier; that jurisdiction of the employer shall, for the purpose of this chapter, be jurisdiction of the insurance carrier and that the insurance carrier shall in all things be bound by and subject to the orders, findings, decisions or awards rendered against the employer for the payment of compensation under the provisions of this chapter.

3. Insolvency of employer does not release the insurance carrier. Every such policy shall contain a provision to the effect that the insolvency or bankruptcy of the employer shall not relieve the insurance carrier from the payment of compensation for injuries or death sustained by an employee during the life of such policy.

4. Limitation of indemnity agreements. Every contract or agreement of an employer the purpose of which

is to indemnify him from loss or damage on account of the injury of an employee by accidental means, or on account of the negligence of such employer or his officer, agent or servant, shall be absolutely void unless it shall also cover liability for the payment of the compensation provided for by this chapter.

5. Cancellation of insurance contracts. No contract of insurance issued by an insurance carrier against liability arising under this chapter shall be cancelled within the time limited in such contract for its expiration until at least ten days after a notice of cancellation of such contract, on a date specified in such notice, shall be filed in the office of the commission and also served on the employer. Such notice shall be served on the employer by delivering it to him or by sending it by mail, by registered letter, addressed to the employer at his or its last known place of residence; provided that, if the employer be a partnership, then such notice may be so given to any one of the partners, and if the employer be a corporation then the notice may be given to any agent or officer of the corporation upon whom legal process may be served. Provided, however, the right to cancellation of a policy of insurance in the state fund shall be exercised only for nonpayment of premiums. [*Subd. 5 am'd by L. 1916, ch. 622.*]

Sections 54 and 20 are to be read together. The Commission has full jurisdiction of disputes between employer and insurer according to an opinion of the Attorney-General rendered August 16, 1915. Compare *McCaffrey v. Tager Contracting Co.*, S. D. R., vol. 5, p. 434; and *Bloom v. Tilin & Bleek*, S. D. R., vol. 5, p. 441.

6. Any insurance carrier may issue policies, including with employees, employers who perform labor incidental to their occupations, such policies insuring to such em-

ployers the same compensations provided for their employees, and at the same rates; provided, however, that the estimation of their wage values, respectively, shall be reasonable and separately stated in and added to the valuation of their pay rolls upon which their premium is computed. The employer so insured shall have the same rights and remedies given an employee by this chapter. [*Subd. 6 added by L. 1916, ch. 622.*]

ARTICLE 4

STATE WORKMEN'S COMPENSATION COMMISSION

Section 60. State workmen's compensation commission.*

61. Secretary, deputies and other employees.*
62. Salaries and expenses.
63. Office.
64. Sessions of commission.
65. Powers of individual commissioners and deputy commissioners.
66. Powers and duties of secretary.
67. Rules.
68. Technical rules of evidence or procedure not required.
69. Issue of subpoena; penalty for failure to obey.
70. Recalcitrant witnesses punishable as for contempt.
71. Fees and mileage of witnesses.
72. Depositions.
73. Transcript of stenographer's minutes; effect as evidence.
74. Jurisdiction of commission to be continuing.
75. Report of commission.

* §§ 60, 61, of the Workmen's Compensation Law were repealed, and the functions of the Workmen's Compensation Commission transferred to the newly created Industrial Commission, by L. 1915, ch. 674, §§ 2-8. For organization and functions of the Industrial Commission, compare Labor Law §§ 40-52e.

76. Commission to furnish blank forms.

77. Expenses of administering commission.

§ 62. EXPENSES.—The commission may make the necessary expenditure to obtain statistical and other information to establish classifications of employments with respect to hazards and risks. The expenses of the commission, including the premiums to be paid by the state treasurer for the bond to be furnished by him, shall be paid out of the state treasury upon vouchers signed by at least two commissioners. [*As am'd by L. 1915, ch. 674.*]

§ 63. OFFICE.—The commission shall keep and maintain its principal office in the city of Albany, in rooms in the capitol assigned by the trustees of public buildings. The office shall be supplied with necessary office furniture, supplies, books, maps, stationery, telephone connections and other necessary appliances, at the expense of the state, payable in the same manner as other expenses of the commission.

§ 64. SESSIONS OF COMMISSION.—The commission shall be in continuous session and open for the transaction of business during all business hours of every day excepting Sundays and legal holidays. All sessions shall be open to the public and may be adjourned, upon entry thereof in its records, without further notice. Whenever convenience of parties will be promoted or delay and expense prevented, the commission may hold sessions in cities other than the city of Albany. A party may appear before such commission and be heard in person or by attorney. Every vote and official act of the commission shall be entered of record, and the records shall contain a record of each case considered, and the award, decision or order made with respect thereto, and all voting shall

be by the calling of each commissioner's name by the secretary and each vote shall be recorded as cast. A majority of the commission shall constitute a quorum. A vacancy shall not impair the right of the remaining commissioners to exercise all the powers of the full commission so long as a majority remains.

§ 65. POWERS OF INDIVIDUAL COMMISSIONERS AND DEPUTY COMMISSIONERS.—Any investigation, inquiry or hearing which the commission is authorized to hold or undertake may be held or taken by or before any commissioner or deputy commissioner, and the award, decision or order of a commissioner or deputy commissioner, when approved and confirmed by the commission and ordered filed in its office, shall be deemed to be the award, decision or order of the commission. Each commissioner and deputy shall, for the purposes of this chapter, have power to administer oaths, certify to official acts, take depositions, issue subpoenas, compel the attendance of witnesses and the production of books, accounts, papers, records, documents and testimony. The commission may authorize any deputy to conduct any such investigation, inquiry or hearing, in which case he shall have the power of a commissioner in respect thereof.

§ 66. POWERS AND DUTIES OF SECRETARY.—The secretary of the commission shall:

1. Maintain a full and true record of all proceedings of the commission, of all documents or papers ordered filed by the commission, of decisions or orders made by a commissioner or deputy commissioner, and of all decisions or orders made by the commission or approved and confirmed by it and ordered filed, and he shall be responsible to the commission for the safe custody and preservation of all such documents at its office;

2. Have power to administer oaths in all parts of the state, so far as the exercise of such power is properly incident to the performance of his duty or that of the commission;

3. Designate, from time to time, with the approval of the commission, one of the clerks appointed by the commission to exercise the powers and duties of the secretary during his absence;

4. Under the direction of the commission, have general charge of its office, superintend its clerical business, and perform such other duties as the commission may prescribe.

The duties prescribed by this section devolve upon the secretary of the Industrial Commission under the Labor Law, § 49.

§ 67. RULES.—The commission shall adopt reasonable rules, not inconsistent with this chapter, regulating and providing for

1. The kind and character of notices, and the service thereof, in case of accident and injury to employees;

2. The nature and extent of the proofs and evidence, and the method of taking and furnishing the same, to establish the right to compensation;

3. The forms of application for those claiming to be entitled to compensation;

4. The method of making investigations, physical examinations and inspections;

5. The time within which adjudications and awards shall be made;

6. The conduct of hearings, investigations and inquiries;

7. The giving of undertakings by all subordinates who are empowered to receive and disburse moneys, to be

approved by the attorney-general as to form and by the comptroller as to sufficiency;

8. Carrying into effect the provisions of this chapter.

9. The collection, maintenance and disbursement of the state insurance fund. [*Punctuation of § 67 am'd by L.* 1916, *ch.* 622.]

§ 68. TECHNICAL RULES OF EVIDENCE OR PROCEDURE NOT REQUIRED.—The commission or a commissioner or deputy commissioner in making an investigation or inquiry or conducting a hearing shall not be bound by common law or statutory rules of evidence or by technical or formal rules of procedure, except as provided by this chapter; but may make such investigation or inquiry or conduct such hearing in such manner as to ascertain the substantial rights of the parties.

Section 67, above, requires the Commission to adopt reasonable rules of evidence, not inconsistent with the Workmen's Compensation Law.

The courts have repeatedly emphasized the independence of precedents permitted and suggested by this section: *Rheinwald v. Builders' Brick & Supply Co.*, 168 App. Div. 425; *Kenny v. Union Railway Co.*, 166 App. Div. 497; *Carroll v. Knickerbocker Ice Co.*, 169 App. Div. 450; *Dale v. Saunders Bros.*, 171 App. Div. 528; 218 N. Y. 59.

Section 20 makes the decisions of the Commission "final as to all questions of fact." For the jurisdiction of the courts to review the evidence in compensation cases, see *Goldstein v. Centre Iron Works*, 167 App. Div. 526; *Carroll v. Knickerbocker Ice Co.*, 169 App. Div. 450; *Gardner v. Horseheads Construction Co.*, 171 App. Div. 66; *Rhyner v. Hueber Building Co.*, 171 App. Div. 58. The opinion in the *Carroll* case admits the validity of hearsay evidence; the opinion in the *Rhyner* case declares that "if there are no facts in the case * * * a question of law arises" which gives the courts jurisdiction.

§ 69. ISSUE OF SUBPOENA; PENALTY FOR FAILURE TO OBEY.—A subpoena shall be signed and issued by a com-

missioner, a deputy commissioner or by the secretary of the commission and may be served by any person of full age in the same manner as a subpoena issued out of a court of record. If a person fail, without reasonable cause, to attend in obedience to a subpoena, or to be sworn or examined or answer a question or produce a book or paper, or to subscribe and swear to his deposition after it has been correctly reduced to writing, he shall be guilty of a misdemeanor.

§ 70. RECALCITRANT WITNESSES PUNISHABLE AS FOR CONTEMPT.—If a person in attendance before the commission or a commissioner or deputy commissioner refuses, without reasonable cause, to be examined, or to answer a legal and pertinent question or to produce a book or paper, when ordered so to do by the commission or a commissioner or deputy commissioner, the commission may apply to a justice of the supreme court upon proof by affidavit of the facts for an order returnable in not less than two nor more than five days directing such person to show cause before the justice who made the order, or any other justice of the supreme court, why he should not be committed to jail. Upon the return of such order the justice shall examine under oath such person and give him an opportunity to be heard; and if the justice determine that he has refused without reasonable cause or legal excuse to be examined or to answer a legal and pertinent question, or to produce a book or paper which he was ordered to bring, he may forthwith, by warrant, commit the offender to jail, there to remain until he submits to do the act which he was so required to do or is discharged according to law.

§ 71. FEES AND MILEAGE OF WITNESSES.—Each witness who appears in obedience to a subpoena before the commission or a commissioner or deputy commissioner,

or person employed by the commission to obtain the required information, shall receive for his attendance the fees and mileage provided for witnesses in civil cases in the supreme court, which shall be audited and paid from the state treasury in the same manner as other expenses of the commission. A witness subpoenaed at the instance of a party other than the commission, a commissioner, deputy commissioner or person acting under the authority of the commission shall be entitled to fees or compensation from the state treasury, if the commission certify that his testimony was material to the matter investigated, but not otherwise.

§ 72. DEPOSITIONS.—The commission may cause depositions of witnesses residing within or without the state to be taken in the manner prescribed by law for like depositions in civil actions in the supreme court.

§ 73. TRANSCRIPT OF STENOGRAPHER'S MINUTES; EFFECT AS EVIDENCE.—A transcribed copy of the testimony, evidence and procedure or of a specific part thereof, or of the testimony of a particular witness or of a specific part thereof, on any investigation, by a stenographer appointed by the commission, being certified by such stenographer to be a true and correct transcript thereof and to have been carefully compared by him with his original notes, may be received in evidence by the commission with the same effect as if such stenographer were present and testified to the facts so certified, and a copy of such transcript shall be furnished on demand to any party upon payment of the fee provided for a transcript of similar minutes in the supreme court.

§ 74. JURISDICTION OF COMMISSION TO BE CONTINUING.—The power and jurisdiction of the commission over each case shall be continuing, and it may, from time to

time, make such modification or change with respect to former findings or orders relating thereto, as in its opinion may be just.

Compare § 22.

§ 75. REPORT OF COMMISSION.—Annually on or before the first day of February, the commission shall make a report to the legislature, which shall include a statement of the number of awards made by it and the causes of the accidents leading to the injuries for which the awards were made, a detailed statement of the expenses of the commission, the condition of the state insurance fund, together with any other matter which the commission deems proper to report to the legislature, including any recommendations it may desire to make.

L. 1916, ch. 622, although including it, made no change in this section.

§ 76. COMMISSION TO FURNISH BLANK FORMS.—The commission shall prepare and cause to be distributed so that the same may be readily available blank forms of application for compensation, notice to employers, proofs of injury or death, of medical or other attendance or treatment, of employment and wage earnings, and for such other purposes as may be required. Insured employers shall constantly keep on hand a sufficient supply of such blanks.

§ 77. EXPENSES OF ADMINISTERING COMMISSION.—As soon as practicable after July first, nineteen hundred and seventeen, and annually thereafter, the commission shall ascertain the total amount of its expenses incurred during the preceding fiscal year, in connection with the administration of the workmen's compensation law, and shall thereupon assess upon and collect from each insur-

ance carrier, including the state insurance fund, the proportion of such expense that the total compensation or payments made by such carrier in such year bore to the total compensation or payments made by all insurance carriers. The amounts so secured shall be transferred to the state treasury to reimburse it for this portion of the expense of administering this chapter. [*Added by L. 1916, ch. 622.*]

Compare § 94. Under §§ 26 and 110 all penalties imposed by the Workmen's Compensation Law are applicable to the expenses of the Commission. For references to penalties, see note to § 110.

ARTICLE 5

STATE INSURANCE FUND

Section 90. Creation of state fund.

91. State treasurer custodian of fund.
92. Surplus and reserve.
93. Investment of surplus or reserve.
94. Administration expense.
95. Classification of risks and adjustment of premiums.
96. Associations for accident prevention.
97. Requirements in classifying employment and fixing and adjusting premium rates.
98. Time of payment of premiums.
99. Action for collection in case of default.
100. Withdrawal from fund.
101. Audit of payrolls.
102. Falsification of payroll.
103. Willful misrepresentation.
104. Inspections.
105. Disclosures prohibited.
106. Reports of state insurance fund; examination by insurance department.

§ 90. CREATION OF STATE FUND.—There is hereby created a fund to be known as "the state insurance fund,"

for the purpose of insuring employers against liability under this chapter and of assuring to the persons entitled thereto the compensation provided by this chapter. Such fund shall consist of all premiums received and paid into the fund, of property and securities acquired by and through the use of moneys belonging to the fund and of interest earned upon moneys belonging to the fund and deposited or invested as herein provided. Such fund shall be administered by the commission without liability on the part of the state beyond the amount of such fund. Such fund shall be applicable to the payment of losses sustained on account of insurance and to the payment of expenses in the manner provided in this chapter.

§ 91. STATE TREASURER CUSTODIAN OF FUND.—The state treasurer shall be the custodian of the state insurance fund; and all disbursements therefrom shall be paid by him upon vouchers authorized by the commission and signed by any two members thereof. The state treasurer shall give a separate and additional bond in an amount to be fixed by the governor and with sureties approved by the state comptroller conditioned for the faithful performance of his duty as custodian of the state fund. The state treasurer may deposit any portion of the state fund not needed for immediate use, in the manner and subject to all the provisions of law respecting the deposit of other state funds by him. Interest earned by such portion of the state insurance fund deposited by the state treasurer shall be collected by him and placed to the credit of the fund.

§ 92. SURPLUS AND RESERVES.—Ten per centum of the premiums collected from employers insured in the fund shall be set aside by the commission for the creation of a surplus until such surplus shall amount to the sum

of one hundred thousand dollars, and thereafter five per centum of such premiums, until such time as in the judgment of the commission such surplus shall be sufficiently large to cover the catastrophe hazard. The commission shall also set up and maintain reserves adequate to meet anticipated losses and carry all claims and policies to maturity, which reserves shall be computed in accordance with such rules as shall be approved by the superintendent of insurance. [*As am'd by L. 1916, ch. 622.*]

§ 93. INVESTMENT OF SURPLUS OR RESERVE.—Any of the surplus or reserve funds belonging to the state insurance fund may, pursuant to a resolution of the commission approved by the superintendent of insurance, be invested in or loaned on the pledge of any of the securities in which deposits of insurance corporations are required to be invested pursuant to section thirteen of the insurance law, or in the public stocks or bonds of any one of the United States, or in bonds and mortgages on improved unencumbered real property in this state worth fifty per centum more than the amount loaned thereon. All such securities or evidences of indebtedness shall be placed in the hands of the state treasurer who shall be the custodian thereof. He shall collect the principal and interest thereof, when due, and pay the same into the state insurance fund. The state treasurer shall pay all vouchers drawn on the state insurance fund for the making of such investments when signed by two members of the commission, upon delivery of such securities or evidences of indebtedness to him, when there is attached to such vouchers a certified copy of the resolution of the commission authorizing the investment. The commission may, upon like resolution approved by the superintendent of insurance, sell any of such securities. [*As am'd by L. 1916, ch. 622.*]

§ 94. ADMINISTRATION EXPENSE.—The entire expense of administering the state insurance fund shall be paid in the first instance by the state, out of moneys appropriated therefor. In the month of July, nineteen hundred and seventeen, and annually thereafter in such month, the commission shall ascertain the just amount incurred by the commission during the preceding fiscal year, in the administration of the state insurance fund, and shall refund such amount to the state treasury. If there be employees of the commission other than the commissioners themselves and the secretary whose time is devoted partly to the general work of the commission and partly to the work of the state insurance fund, and in case there is other expense which is incurred jointly on behalf of the general work of the commission and the state insurance fund, an equitable apportionment of the expense shall be made for such purpose and the part thereof which is applicable to the state insurance fund shall be chargeable thereto. [*As am'd by L. 1916, ch. 622.*]

Under §§ 26 and 110 all penalties imposed by the Workmen's Compensation Law are applicable to the expenses of the Commission.

§ 95. CLASSIFICATION OF RISKS AND ADJUSTMENT OF PREMIUMS.—Employments coming under the provisions of this chapter shall be divided for the purposes of the state fund, into the groups set forth in section two of this chapter. Separate accounts shall be kept of the amounts collected and expended in respect to each such group for convenience in determining equitable rates; but for the purpose of paying compensation the state fund shall be deemed one and indivisible. The commission shall have power to rearrange any of the groups set forth in section two by withdrawing any employment

embraced in it and transferring it wholly or in part to any other group, and from such employments to set up new groups at its discretion. The commission shall determine the hazards of the different classes composing each group and fix the rates of premiums therefor based upon the total payroll and number of employees in each of such classes of employment at the lowest possible rate consistent with the maintenance of a solvent state insurance fund and the creation of a reasonable surplus and reserve; and for such purpose may adopt a system of schedule rating in such a manner as to take account of the peculiar hazard of each individual risk.

The limitations upon the power of the Commission to group a single employer by himself for rating and dividend purposes have been set forth in an opinion of the Attorney-General, S. D. R., vol. 6, p. 476, January 26, 1916.

Under § 67 of the Insurance Law, added by L. 1914, ch. 16, risks and premiums of workmen's compensation, other than those of the state fund, must be filed by private insurance corporations or associations with the superintendent of insurance and must be approved by him before going into effect.

§ 96. ASSOCIATIONS FOR ACCIDENT PREVENTION.—The employers in any of the groups described in section two or established by the commission may with the approval of the commission form themselves into an association for accident prevention, and may make rules for that purpose. If the commission is of the opinion that an association so formed sufficiently represents the employers in such group, it may approve such rules, and when so approved and approved by the industrial board of the labor department they shall be binding on all employers in such group. If such an approved association appoint an inspector or expert for the purpose of accident prevention, the commission may at its discretion provide in whole or in part for the payment of the remuneration

and expenses of such inspector or expert, such payment to be charged in the accounting to such group. Every such approved association may make recommendations to the commission concerning the fixing of premiums for classes of hazards, and for individual risks within such group.

For the powers and duties of directors of mutual employers' liability and workmen's compensation corporations relative to accident prevention, compare Insurance Law, § 193.

§ 97. REQUIREMENTS IN CLASSIFYING EMPLOYMENT AND FIXING AND ADJUSTING PREMIUM RATES.—The following requirements shall be observed in classifying employments and fixing and adjusting premium rates:

1. The commission shall keep an accurate account of the money paid in premiums by each of the several classes of employments or industries, and the disbursements on account of injuries and deaths of employees thereof, including the setting up of reserves adequate to meet anticipated losses and to carry the claims to maturity, and also, on account of the money received from each individual employer and the amount disbursed from the state insurance fund on account of injuries and death of the employees of such employer, including the reserves so set up;

2. On January first, nineteen hundred and fifteen, and every fifth year thereafter, and at such other times as the commission, in its discretion, may determine, a readjustment of the rate shall be made for each of the several groups of employment or industries and of each hazard class therein, which, in the judgment of the commission, shall have developed an average loss ratio, in accordance with the experience of the commission in the administration of the law as shown by the accounts kept as provided herein;

3. If any such accounting show an aggregate balance (deemed by the commission to be safely and properly divisible) remaining to the credit of any class of employment or industry, after the amount required shall have been credited to the surplus and reserve funds and after the payment of all awards for injury or death lawfully chargeable against the same, the commission may in its discretion credit to each individual member of such group, who shall have been a subscriber to the state insurance fund for a period of six months or more prior to the time of such readjustment, and whose premium or premiums exceed the amount of the disbursements from the fund on account of injuries or death of his employees during such period, on the installment or installments of premiums next due from him such proportion of such balance as the amount of his prior paid premiums sustains to the whole amount of such premiums paid by the group to which he belongs since the last readjustment of rates. In the event that any member of the group who has heretofore or shall hereafter withdraw would have become entitled to such dividend if he had remained in the fund the commission is empowered to pay the amount of the dividend to such employer. [*Subd. 3 am'd by L. 1916, ch. 622.*]

4. If the amount of premiums collected from any employer at the beginning of any period of six months is ascertained and calculated by using the estimated expenditure of wages for the period of time covered by such premium payment as a basis, an adjustment of the amount of such premium shall be made at the end of such six months, and the actual amount of such premium shall be determined in accordance with the amount of the actual expenditure of wages for such period; and, if such wage expenditure for such period is less than the amount on which such estimated premium was collected,

such employer shall be entitled to receive a refund from the state insurance fund of the difference between the amount so paid by him and the amount so found to be actually due, or to have the amount of such difference credited on succeeding premium payments, at his option; and if such actual premium, when so ascertained, exceeds in amount a premium so paid by such employer at the beginning of such six months, such employer shall immediately upon being advised of the true amount of such premium due forthwith pay to the treasurer of the state an amount equal to the difference between the amount actually found to be due and the amount paid by him at the beginning of such six months' period.

§ 98. TIME OF PAYMENT OF PREMIUMS.—Except as otherwise provided in this chapter, all premiums shall be paid by every employer into the state insurance fund on or before July first, nineteen hundred and fourteen, and semi-annually thereafter, or at such other time or times as may be prescribed by the commission. The commission shall mail a receipt for the same to the employer and place the same to the credit of the state insurance fund in the custody of the state treasurer.

§ 99. ACTION FOR COLLECTION IN CASE OF DEFAULT.—If an employer shall default in any payment required to be made by him to the state insurance fund, the amount due from him shall be collected by civil action against him in the name of the people of the state of New York, and it shall be the duty of the commission on the first Monday of each month after July first, nineteen hundred and fourteen, to certify to the attorney-general of the state the names and residences, or places of business, of all employers known to the commission to be in default for such payment or payments for a longer period than five days and the amount due from such employer,

and it shall then be the duty of the attorney-general forthwith to bring or cause to be brought against each such employer a civil action in the proper court for the collection of such amount so due, and the same when collected, shall be paid into the state insurance fund, and such employer's compliance with the provisions of this chapter requiring payments to be made to the state insurance fund shall date from the time of the payment of said money so collected as aforesaid to the state treasurer for credit to the state insurance fund.

§ 100. WITHDRAWAL FROM FUND.—Any employer may, upon complying with subdivision two or three of section fifty of this chapter, withdraw from the fund by turning in his insurance contract for cancellation, provided he is not in arrears for premiums due the fund and has given to the commission written notice of his intention to withdraw within thirty days before the expiration of the period for which he has elected to insure in the fund; provided that in case any employer so withdraws, his liability to assessments shall, notwithstanding such withdrawal, continue for one year after the date of such withdrawal as against all liabilities for such compensation accruing prior to such withdrawal. [*As am'd by L. 1916, ch. 622.*]

This reference to assessment is the only use of the word in the Workmen's Compensation Law. The Attorney-General, in an opinion of July 16, 1915, has held that assessments cannot be levied.

§ 101. AUDIT OF PAYROLLS.—Every employer who is insured in the state insurance fund shall keep a true and accurate record of the number of his employees and the wages paid by him, and shall furnish to the commission, upon demand, a sworn statement of the same. Such record shall be open to inspection at any time and as often

as the commission shall require to verify the number of employees and the amount of the payroll.

§ 102. FALSIFICATION OF PAYROLL.—An employer who shall willfully misrepresent the amount of the payroll upon which the premiums chargeable by the state insurance fund is to be based shall be liable to the state in ten times the amount of the difference between the premiums paid and the amount the employer should have paid had his payroll been correctly computed and the liability to the state under this section shall be enforced in a civil action in the name of the state insurance fund, and any amount so collected shall become a part of such fund.

§ 103. WILLFUL MISREPRESENTATION.—Any person who willfully misrepresents any fact in order to obtain insurance in the state insurance fund at less than the proper rate for such insurance, or in order to obtain payment out of such fund, shall be guilty of a misdemeanor.

§ 104. INSPECTIONS.—The commission shall have the right to inspect the plants and establishments of employers insured in the state insurance fund; and the inspectors designated by the commission shall have free access to such premises during regular working hours.

§ 105. DISCLOSURES PROHIBITED.—Information acquired by the commission or its officers or employees from employers or employees pursuant to this chapter shall not be opened to public inspection, and any officer or employee of the commission who, without authority of the commission or pursuant to its rules or as otherwise required by law shall disclose the same shall be guilty of a misdemeanor.

§ 106. REPORTS OF STATE INSURANCE FUND; EXAMINATION BY INSURANCE DEPARTMENT.—The commission

shall make reports to the superintendent of insurance concerning the state insurance fund at the same times and in the same manner as is required from mutual employers' liability and workmen's compensation corporations by section one hundred and ninety-two of the insurance law, and the superintendent of insurance may examine into the condition of such state insurance fund at any time, either personally or by any duly authorized examiner appointed by him, for the purpose of determining the condition of the investments and the adequacy of the reserves of such fund. [*Added by L. 1916, ch. 622.*]

ARTICLE 6

MISCELLANEOUS PROVISIONS

Section 110. Penalties applicable to expense of commission.

111. Record and report of injuries by employers.

112. Information to be furnished by employer.

113. Inspection of records of employers.

114. Interstate commerce.

115. Penalties for false representations.

116. Limitation of time.

117. Duties of commissioner of labor.

118. Unconstitutional provisions.

119. Actions or causes of action pending.

§ 110. PENALTIES APPLICABLE TO EXPENSES OF COMMISSION.—All penalties imposed by this chapter shall be applicable to the expenses of the commission. When collected by the commission such penalties shall be paid into the state treasury and be thereafter appropriated by the legislature for the purposes prescribed by this section.

Penalties are prescribed by §§ 26, 31, 50, 69, 102, 103, 105, 111, 115. Actions for their recovery may be brought under § 26.

§ 111. RECORD AND REPORT OF INJURIES BY EMPLOYERS.—Every employer shall keep a record of all injuries, fatal or otherwise, received by his employees in the course of their employment. Within ten days after the occurrence of an accident resulting in personal injury a report thereof shall be made in writing by the employer to the commission upon blanks to be procured from the commission for that purpose. Such report shall state the name and nature of the business of the employer, the location of his establishment or place of work, the name, address and occupation of the injured employee, the time, nature and cause of the injury and such other information as may be required by the commission. An employer who refuses or neglects to make a report as required by this section shall be guilty of a misdemeanor, punishable by a fine of not more than five hundred dollars.

Compare Labor Law, §§ 20-a, 87 and 126.

In regard to evidence of accidental injury, §§ 18, 21 and 111 are to be read together. The employer's failure to give the details required by § 111 has told against him in *McQueeney v. Sutphen & Myer*, 167 App. Div. 528; *Kohler v. Frohmann*, 167 App. Div. 533; and *Powley v. Vivian & Co.*, 169 App. Div. 170.

§ 112. INFORMATION TO BE FURNISHED BY EMPLOYER.—Every employer shall furnish the commission, upon request, any information required by it to carry out the provisions of this chapter. The commission, a commissioner, deputy commissioner, or any person deputized by the commission for that purpose, may examine under oath any employer, officer, agent or employee. An employer or an employee receiving from the commission a blank with directions to file the same shall cause the same to be properly filled out so as to answer fully and correctly all questions therein, or if unable to do so, shall give good and sufficient reasons for such failure. Answers to such questions shall be verified under oath and returned to the

commission within the period fixed by the commission therefor.

§ 113. INSPECTION OF RECORDS OF EMPLOYERS.—All books, records and payrolls of the employers showing or reflecting in any way upon the amount of wage expenditures of such employers shall always be open for inspection by the commission or any of its authorized auditors, accountants or inspectors for the purpose of ascertaining the correctness of the wage expenditure and number of men employed and such other information as may be necessary for the uses and purposes of the commission in the administration of this chapter.

§ 114. INTERSTATE COMMERCE.—The provisions of this chapter shall apply to employers and employees engaged in intrastate, and also in interstate or foreign commerce, for whom a rule of liability or method of compensation has been or may be established by the congress of the United States, only to the extent that their mutual connection with intrastate work may and shall be clearly separable and distinguishable from interstate or foreign commerce, except that such employer and his employees working only in this state may, subject to the approval and in the manner provided by the commission and so far as not forbidden by any act of congress, accept and become bound by the provisions of this chapter in like manner and with the same effect in all respects as provided herein for other employers and their employees.

Compare § 2, groups 1-8, 10.

"Section 114 is one of limitation": *Jensen v. Southern Pacific Co.*, 215 N. Y. 514, 521; *Post v. Burger & Gohlke*, 216 N. Y. 544.

"The words 'may be' should be construed in the sense of 'shall be'": *Jensen v. Southern Pacific Co.*, 215 N. Y. 522.

The decisions of the courts narrow the application of the law of negligence to accidental injuries arising in the interstate com-

merce employments enumerated under a Workmen's Compensation Law, § 2, not only to railroad accidents strictly but to railroad accidents in which the accident is due to the railroad's negligence. The relations of federal and state law in the matter of workmen's compensation are discussed fully in the leading case of *Winfield v. N. Y. C. & H. R. R. Co.*, 216 N. Y. 284. The coverage of the Workmen's Compensation Law of New York, from the standpoint of interstate commerce, is intended to be just as broad as federal law permits: *Jensen v. Southern Pacific Co.*, 215 N. Y. 521. An accident to an employee of an interstate railroad is compensable: if the element of negligence is absent: *Winfield v. N. Y. C. & H. R. R. Co.*, 216 N. Y. 284; if the employee is engaged in new construction work: *White v. N. Y. Central & H. R. R. Co.*, S. D. R., vol. 2, p. 477, compensation ruling, as affirmed without opinion, 169 App. Div. 903, 216 N. Y., Rep. 653; if the employee is injured while repairing an empty car of a foreign company: *Parsons v. Delaware & Hudson Co.*, 167 App. Div. 536; *Okrzesz v. Lehigh Valley Railroad Co.*, 170 App. Div. 15; if the employee is injured on a steamship line operated by the railroad: *Jensen v. Southern Pacific Co.*, 215 N. Y. 522; if the railroad, though an intrastate carrier, occasionally carries interstate baggage, freight, passengers, cars, etc.; *Fairchild v. Pennsylvania R. R. Co.*, 170 App. Div. 135.

A claim for compensation may exist concurrently with a remedy in admiralty: *Walker v. Clyde S. S. Co.*, 215 N. Y. 529; Opinion of Counsel to Workmen's Compensation Commission, S. D. R., vol. 1, p. 413.

§ 115. PENALTIES FOR FALSE REPRESENTATION.—If for the purpose of obtaining any benefit or payment under the provisions of this chapter, either for himself or any other person, any person willfully makes a false statement or representation, he shall be guilty of a misdemeanor.

§ 116. LIMITATION OF TIME.—No limitation of time provided in this chapter shall run as against any person who is mentally incompetent or a minor dependent so long as he has no committee, guardian or next friend.

§ 117. DUTIES OF COMMISSIONER OF LABOR.—The commissioner of labor shall render to the commission any proper aid and assistance by the department of labor as in his judgment does not interfere with the proper conduct of such department.

§ 118. UNCONSTITUTIONAL PROVISIONS.—If any section or provision of this chapter be decided by the courts to be unconstitutional or invalid, the same shall not affect the validity of the chapter as a whole or any part thereof other than the part so decided to be unconstitutional or invalid.

§ 119. ACTIONS OR CAUSES OF ACTION PENDING.—This act shall not affect any action pending or cause of action existing or which accrued prior to July first, nineteen hundred and fourteen.

ARTICLE 7

LAWS REPEALED; WHEN TO TAKE EFFECT

Section 130. Laws repealed.

131. When to take effect.

§ 130. LAWS REPEALED.—Article fourteen-a and sections two hundred and fifteen to two hundred nineteen-g, both inclusive, of chapter thirty-six of the laws of nineteen hundred and nine, as amended *by chapter six hundred and seventy-four of the laws of nineteen hundred and ten, are hereby repealed.

§ 131. WHEN TO TAKE EFFECT.—This chapter shall take effect immediately†, provided that the application of

* "As amended" should read "as added."

† L. 1916, ch. 816, has words "January first, nineteen hundred and fourteen," instead of word "immediately," which was inserted by L. 1914, ch. 41, in effect March 16, 1914. The amendments of L. 1916, ch. 622, took effect June 1, 1916.

: this chapter as between employers and employees and the payment of compensation for injuries to employees or their dependents, in case of death, shall take effect July first, nineteen hundred and fourteen, but payments into the state insurance fund may be made prior to July first, nineteen hundred and fourteen.

APPENDIX B

FORM OF WORKMEN'S COMPENSATION AND EMPLOYERS' LIABILITY POLICY CONTRACT COVERING A TYPICAL MANUFACTURING RISK

SCOPE AND CONDITIONS OF CONTRACT

THE _____ INSURANCE COMPANY

(HEREIN CALLED THE COMPANY)

(A Liability Insurance Company authorized to do business in the state in which this Policy applies.)

DOES HEREBY AGREE WITH THE EMPLOYER

Named and described as such in the Declarations forming part hereof, as respects personal injuries sustained by his employees including death at any time resulting therefrom as follows:

Indemnity I. (a) To PAY to the person and in the manner provided by the Workmen's Compensation Law, any sum due or to become due from this Employer because of any such injury and the obligation for compensation therefor imposed upon or accepted by this Employer under certain Statutes cited and described in an endorsement attached to this

Policy, each of which Statutes is herein referred to as the Workmen's Compensation Law. It is agreed that all of the provisions of each Workmen's Compensation Law covered hereby shall be and remain a part of this contract, as fully and completely as though written herein, so far as they apply to compensation for any personal injury or death covered by this Policy while this Policy shall remain in force, and all premiums provided by this Policy, or by any endorsement hereon shall be fully earned whether any such Workmen's Compensation Law, or any part of any such, is now, or shall hereafter be, declared invalid or unconstitutional. This obligation for compensation shall include all provisions of the Workmen's Compensation Law respecting funeral expenses, medical, surgical, nurse and hospital services, medical or surgical apparatus or appliances and medicines. Nothing herein contained shall operate to so extend this Policy as to include within its terms any Workmen's Compensation Law, scheme or plan not cited and described in an endorsement hereto attached.

(b) To INDEMNIFY this Employer against loss by reason of the liability imposed upon him by law for damages on account of such injuries.

Service

II. (1) To SERVE this Employer by the inspection of workplaces covered by the Policy when and as deemed desirable by the Company and thereupon to suggest to this Employer such changes or improvements as may operate to

reduce the number or severity of injuries during work, and (2) upon notice of such injuries by investigation thereof and by settlement of any resulting claims in accordance with the law.

Defense

III. TO DEFEND in the name and on behalf of this Employer any suits or other proceedings which may at any time be instituted against him on account of such injuries, including suits or other proceedings alleging such injuries and demanding damages or compensation therefor although such suits, other proceedings, allegations or demands are wholly groundless, false or fraudulent.

Expenses

IV. TO PAY all costs taxed against this Employer in any legal proceeding defended by the Company, all interest accruing after entry of judgment, and all expenses incurred by the Company for investigation, negotiation or defense.

Persons Covered

V. THIS AGREEMENT shall apply to such injuries sustained by any person or persons legally employed by this Employer whose entire remuneration shall be included in the total actual remuneration for which provision is hereinafter made, upon which remuneration the premium for this Policy is to be computed and adjusted and to such injuries sustained by the President, any Vice-President, Secretary or Treasurer of this Employer, if a corporation, but the remuneration of any such officer may be excluded unless he personally supervises the manual or mechanical processes covered hereby.

**Operations
Covered**

VI. THIS AGREEMENT shall apply to such injuries so sustained by reason of the business operations described in said Declarations, together with operations incident thereto, while conducted either at the workplaces therein described and defined or elsewhere in connection therewith.

**Policy
Period**

VII. THIS AGREEMENT shall apply only to such injuries so sustained by reason of accidents occurring while this Policy remains in force as provided and defined in Item 2 of said Declarations.

THIS AGREEMENT IS SUBJECT TO THE FOLLOWING
CONDITIONS:

**Premium
Computation**

A. The Premium is based upon the entire remuneration earned during any Policy Period, by all employees of this Employer engaged in the business operations described in said Declarations, and not herein elsewhere specifically excluded, the amount of such remuneration to be exhibited by this Employer to the Company as provided in Condition C. hereof, and the earned premium adjusted in accordance therewith at the rates hereinafter specified. If the earned premium thus computed is greater than the advance premium paid, this Employer shall immediately pay the additional amount to the Company; if less, the Company shall return to this Employer the unearned portion, but in any event the Company shall retain the Minimum Premium stated in said Declarations.

Cancellation B. This Policy may be canceled at any time by either of the parties upon written notice to the other party stating when, not less than ten days thereafter, cancelation shall be effective and the Policy shall thereupon terminate. Such portion of said Workmen's Compensation Law, or any other statute, or any lawful order of any Board, Commission or other designated agency of the state in any state in which this Policy is operative as shall require that similar notice of cancelation shall, at the same time, be sent by the party giving it to any Board, Commission, or other designated agency of such state is hereby made a part of this Policy in the language of such law or order as fully and completely as if wholly written herein. The remuneration of employees for the full Policy Period during which such cancelation becomes effective, shall be computed upon the basis of the remuneration during such period to date of cancelation. If such cancelation is at the Company's request or at this Employer's request, when actually retiring from the business herein described, or at the request of either to become effective at the end of any Policy Period, the earned premium shall be computed and adjusted pro rata as provided in Condition A. If such cancelation is at this Employer's request and he is not retiring from the business herein described, and cancelation is not to become effective at the end of a Policy Period, the earned premium shall be computed and adjusted at short rates, in accordance with the table printed hereon,

but such short rate premium shall not be less than the minimum premium stated in said Declarations. If at any time hereafter while this Policy is in force any Compensation Law herein described shall be declared invalid or unconstitutional, in whole or in part, by the judgment of any court of last resort and this Employer shall thereafter notify the Company in writing of his desire to eliminate from this Policy all provisions respecting the obligations contained in such Compensation Law, the Company upon receipt of such notice will adjust the premium rates expressed in this Policy to equitably reflect the changed obligation. Until such written notice requesting readjustment of premium rate shall be received by the Company, the premium rates expressed in this Policy shall remain operative. Notice of cancelation mailed to the address of this Employer herein given shall be a sufficient notice and the check of the Company, similarly mailed, a sufficient tender of any unearned premium.

Inspection

C. The Company shall be permitted, at all reasonable times during any Policy Period, to inspect the plants, works, machinery and appliances covered by this Policy, and to examine this Employer's books at any time during any Policy Period or any extension thereof, or within one year after cancellation, so far as they relate to the remuneration earned by his employees while the Policy was in force.

**Statutory
Obligations**

D. Such part of said Workmen's Compensation Law or any other statute of the state in

which this Policy is operative as provides (a) that an injured employee, or his representative if death results, or any Board, Commission, Officer or other designated agency of the state in his or their behalf, shall have the right to enforce a claim to compensation directly against the Company, or, (b) that as to any such employee notice to or knowledge on the part of this Employer of the occurrence of the injury or death shall be notice to or knowledge of the Company; or, (c) that jurisdiction of this Employer obtained in any legal proceeding for the recovery of compensation shall be jurisdiction of the Company, which shall be bound by any order, finding, decision, award or judgment therein legally rendered against this Employer; or, (d) that any such claim to compensation shall be an equitable lien upon any money which may become owing to this Employer on account of this Policy; or, (e) that the Company shall not be relieved from the payment of such compensation because of the insolvency or bankruptcy of this Employer or because of any default of this Employer after the injury, or; (f) that under any circumstances compensation shall be paid direct to any claimant by the Company is hereby made a part of this Policy in the language of such law and as fully and completely as if wholly written herein and the relation between the Company and such injured employee or those claiming by, through or under him shall be as declared by such provisions but subject to the terms, provisions, limitations and re-

quirements of the Policy not inconsistent therewith.

Notice

E. This Employer upon the occurrence of an accident shall give immediate written notice thereof to the Company or to its duly authorized Agent with the fullest information obtainable. He shall give like notice with full particulars of any claim made on account of such accident. If, thereafter, any suit or other proceeding is instituted against this Employer, he shall immediately forward to the Company every summons, notice or other process served upon him. Nothing contained in paragraph D foregoing or elsewhere in this Policy shall relieve this Employer of his obligations with respect to notice as herein imposed upon him.

**Special
Statutes**

F. If the method of serving notice of cancellation, or the limitation of time for notice of accident or for any legal proceeding herein contained is at variance with any specific statutory provision in relation thereto, in force in any state in which this Policy is operative, such specific statutory provision shall supersede any such condition in this contract inconsistent therewith.

Assignment

G. No assignment of interest under this Policy shall bind the Company unless the consent of the Company shall be endorsed hereon.

Co-Insurance

H. If this Employer carries a policy of any other insurer covering concurrently a claim covered by this Policy, he shall not recover from the Company a larger proportion of any such claim than the sum hereby insured bears to the whole amount of valid and collectible

concurrent insurance. In any state where the law permits employees or their dependents to make claims for compensation against the Company direct, this condition as to co-insurance shall not apply to any such claim so made by any employee or his dependents covered hereby.

Subrogation I. The Company shall be subrogated in case of any payment under this Policy to the extent of such payment to all rights of recovery therefor vested by law in this Employer against persons, corporations or estates. Should any employee or dependent covered hereby, who is legally permitted to do so, make a claim for compensation against the Company direct, the Company, upon payment of the same and to the extent of such payment, shall also be subrogated to all similar rights of recovery vested by law in such employee or such dependent.

Changes J. No condition or provision of this Policy shall be waived or altered except by endorsement attached hereto signed by the President, a Vice-President, Secretary, or Assistant Secretary of the Company; nor shall notice to any Agent, nor shall knowledge possessed by any Agent or by any other person, be held to affect a waiver or change in any part of this contract. Changes in the written portion of the Declarations forming part hereof (except Items 2 and 3) may be made by the Agent countersigning this Policy, such changes to bind the Company when initialed by such Agent. The personal pronoun herein used to

refer to this Employer shall apply regardless of number or gender.

**Declara-
tions**

K. The statements in Items numbered one to thirteen inclusive, in the Declarations hereinafter contained are true, except such as are declared to be matters of estimate only. This Policy is issued in consideration thereof, the provisions of the Policy respecting its premiums and the payment of the premiums in such Declarations expressed.

In Witness Whereof, The _____ Insurance Company, has caused this Policy to be signed by its President and a Secretary at, and countersigned by a duly authorized Agent of the Company.

.....
Secretary Liability Department.

.....
President.

Countersigned by.....

This space is intended for the attachment of such endorsements as may be executed as in the Policy provided, and, when so executed and attached they are to be construed as part of the Policy.

ENDORSEMENTS

The obligations of Section I (a) of the Policy to which this endorsement is attached include such Workmen's Compensation Laws as are herein cited and described and none other.

Act No. 338, Laws of 1915, Commonwealth of Pennsylvania,

Act No. 341, Laws of 1915, Commonwealth of Pennsylvania,

and any laws amendatory thereof which may become effective while this Policy is in force.

The Company hereby agrees that in the event of failure of the Employer promptly to pay any instalment of compensation insured against, the Company will forthwith make such payment to the injured employee or the dependents of the deceased employee, and that the obligations shall not be affected by any default of the Employer after the accident in the payment of premiums or in the giving of any notice required by this Policy or otherwise. The foregoing agreement shall be construed to be a direct promise to such injured employee and to such dependents enforceable by action brought in the name of such injured employee or in the name of such dependents.

If any property of the Employer is subjected to a lien as provided in Section 429 of the Workmen's Compensation Act which lien is based upon any unpaid portion of any compensation obligation undertaken by this Policy, and if the Employer desires to convey or encumber such property or any part thereof, the Company agrees, that by such means as the law provides, it will cause said lien to be removed from such part of the property encumbered thereby as the Employer may at that time desire to convey or encumber unless said lien shall have been removed by other lawful means.

If there shall be any change in the basis rates applicable to the trade, business or occupation of the Employer during the term in which this Policy is in effect, such change of rate shall be applied in the adjustment of the final premium from the date of the approval of such change of rate by the Insurance Department until the expiration of this Policy.

To be attached to and form a part of Policy No.
_____ issued to John Doe.

by
THE _____ INSURANCE COMPANY,
.....,
President.

It is understood and agreed that the remuneration of employees who have rejected the Pennsylvania Workmen's Compensation Law shall be reported separately from the remuneration of employees who have accepted this Law, and a premium paid on the same at the rate or rates appearing in the declaration of the Policy.

Nothing herein contained shall vary, alter or extend any provision or condition of the Policy, other than as above stated.

To be attached to and form a part of Policy No.
_____ issued to John Doe.

by
THE _____ INSURANCE COMPANY,
.....,
President.

If there shall be any change in or extension of the Employer's business or if the Employer shall make any structural additions, extraordinary repairs or alterations to his plant as above described, this Policy shall cover all such operations, trade, business or occupation as fully as if the same had been set forth in the Declarations which form a part of this Policy and the Employer shall pay therefor a premium based upon the Company's rates filed with and approved by the Insurance Department of the Commonwealth of Pennsylvania and respectively applicable to such operations, trade, business or occupation.

The Employees of a Contractor or Subcontractor while

such Employees are engaged on or in connection with the business operations described in the Declarations shall be deemed to be Employees of the Employer, unless such Contractor or Subcontractor shall furnish satisfactory certificates of concurrent valid and collectible Workmen's Compensation Insurance, or unless the Employer shall have exempted himself from liability to the Employees of such Contractor or Subcontractor in the manner provided by the Compensation Law.

To be attached to and form a part of Policy No. _____ issued to John Doe.

by

THE _____ INSURANCE COMPANY,

.....
President.

PREMIUM RATE ADJUSTMENT

The premium rates expressed in the Policy to which this endorsement is attached are the basis rates approved by the Pennsylvania Insurance Department and are subject to such subsequent adjustment as of the date upon which the first Policy Period becomes effective as shall be determined by such differential rate computation as may hereafter be authorized by said Department during such Period. When a differential rate computation has been so authorized, this endorsement shall be replaced by a new endorsement applying such computation to this risk if subject thereto as of the effective date above stated, and any reduction from the basis rates on account of the application of any system of schedule or merit rating shall be clearly set forth in such new endorsement upon the issuance of which this endorsement shall be void and of no effect.

374 COMPENSATION INSURANCE

To be attached to and form a part of Policy No.
_____ issued to John Doe.

by

THE _____ INSURANCE COMPANY,

.....

President.

(c) Clerical and Special Operations to include also all employees whose duties take them away from this Employer's premises and who are not included in Divisions (b) above and (d) below.	CLERICAL FORCE — EXCLUSIVELY ENGAGED IN OFFICE DUTIES.		10000	.06	6	00
	DRAUGHTSMEN—OFFICE DUTIES EXCLUSIVELY		2000	.06	1	20
	OUTSIDE SALESMEN, COLLECTORS AND MESSENGERS—WHEREVER ENGAGED		5000	.10	5	00
	DRIVERS—WHEREVER ENGAGED	If ANY		1.20		
	HELPERS AND OTHERS ENGAGED UPON VEHICLES	If ANY		1.20		
	CHAUFFEURS—WHEREVER ENGAGED		5000	1.05	52	50
	STAMPING (IF SEPARATELY RATED)	NONE				
	RAILROADS—OPERATION AND MAINTENANCE	NONE				
(d) Employees engaged in the repair, alteration, construction or removal of buildings, structures or plant (except machinery). Millwrights—Erecting and Repairing Machinery—not included in Division (a) above.		If ANY		1.66		
The Minimum Premium for this Policy shall be \$10.00						
Estimated Advance Premium.						484 70

- Item 4.** The foregoing enumeration and description of employees includes all persons legally employed in the service of this Employer in connection with the business operations above described to whom remuneration of any nature in consideration of service is paid, allowed or due, except the President, a Vice-President, Secretary, or Treasurer of a Corporation not personally supervising the manual or mechanical processes covered hereby, whose remuneration is not included. The foregoing estimates of remuneration are offered for the purpose of computing the advance premium. The Company shall be permitted to examine the books of this Employer, at any time during any Policy Period, or any extension thereof, or within one year after cancellation, so far as they relate to the remuneration earned by any employees of this Employer while the Policy was in force.
- Item 5.** There are no elevators upon the premises covered by this Policy, which are located and described as follows:
- Item 6.** There are 1 steam boilers upon the premises covered by this Policy, which are located and described as follows:
HORIZONTAL TUBULAR
- Item 7.** These boilers are insured in NOT INSURED.
No corrosive chemicals are used—except as herein stated: NO EXCEPTIONS
- Item 8.** No materials designed to be used as explosives are made, stored, or used on premises—except as herein stated:
NO EXCEPTIONS
- Item 9.** This Employer is conducting no similar business operations at any location not herein disclosed—except as herein stated:
NO EXCEPTIONS
- Item 10.** No operations of any nature not herein disclosed are conducted by this Employer or anyone else upon the premises covered hereby—except as herein stated: NO EXCEPTIONS
- Item 11.** The total remuneration earned by employees of this Employer, in the operations covered hereby, during twelve months ending DEC. 31, 1916, was \$49,675.00.
- Item 12.** No similar insurance has been declined or canceled by any company during the past three years—except as herein stated: NO EXCEPTIONS
- Item 13.** The signature to this proposal is accepted by this Employer as his signature.
(Copy of Signature to Proposed) JOHN DOE.
Per

Date of Issue FEB. 17, 1917.
7678.

FORM OF ASSIGNMENT

_____, 19____

FOR VALUE RECEIVED the interest of this Employer in this Policy is hereby assigned to _____ subject to the consent of _____

THE _____ INSURANCE COMPANY, such assignee to be substituted as the Employer covered hereby.

[Signature of Employer]

_____, 19____

THE _____ INSURANCE COMPANY hereby consents that the interest of this Employer in this Policy be assigned to _____

of _____ who is substituted as the

[Post Office Address of Assignee]

Employer covered hereby.

Secretary.

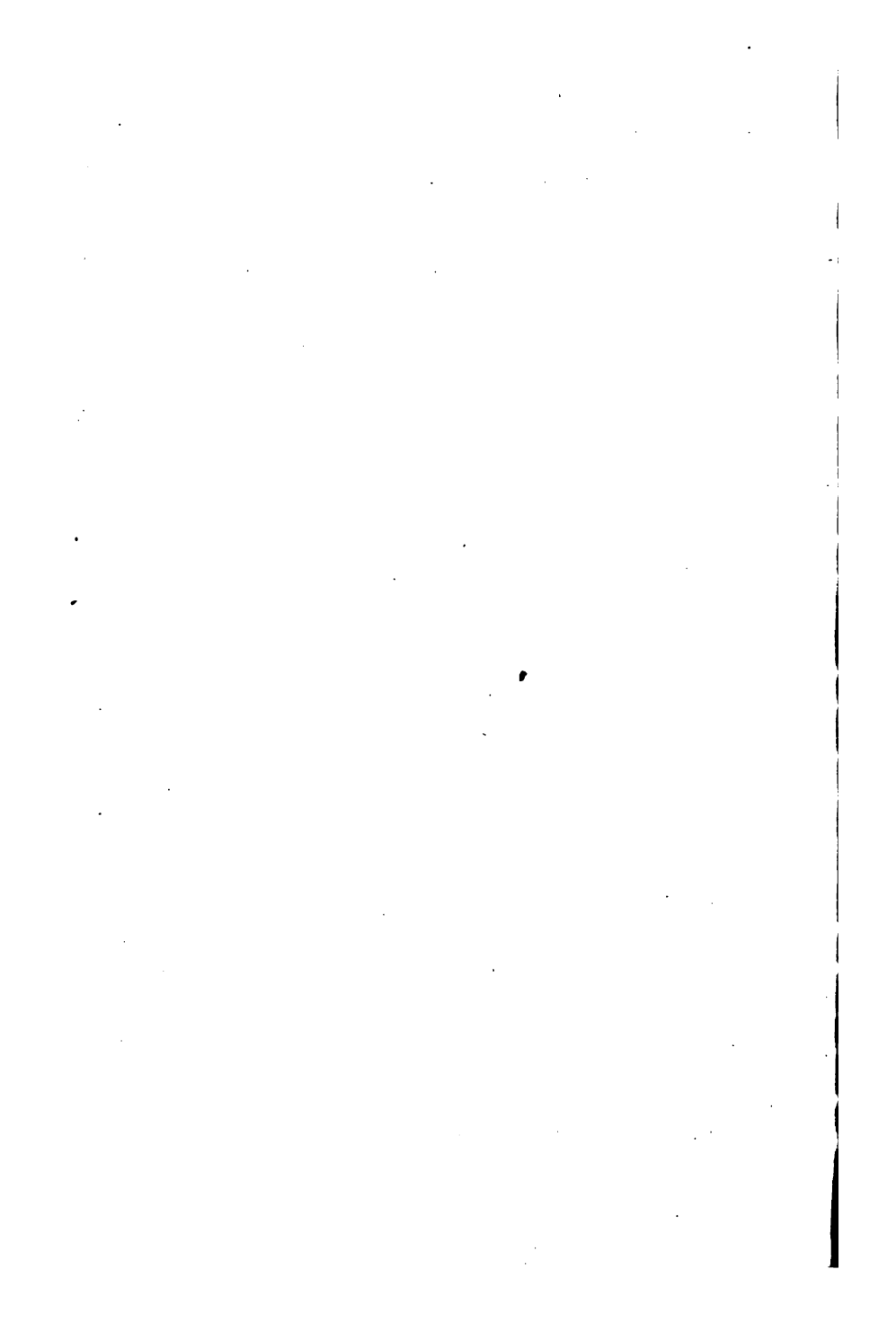
SHORT RATE TABLE

Short Rate Cancellation Table

FOR TERM OF ONE YEAR

	Per cent. of Annual Premium		Per cent. of Annual Premium
1 day	2	50 days	28
2 days	4	55 "	29
3 "	5	60 "	30
4 "	6	65 "	33
5 "	7	70 "	36
6 "	8	75 "	37
7 "	9	80 "	38
8 "	9	85 "	39
9 "	10	90 " or three months .	40
10 "	10	105 "	45
11 "	11	120 " or four months .	50
12 "	12	135 "	55
13 "	13	150 " or five months .	60
14 "	13	165 "	65
15 "	14	180 " or six months .	70
16 "	14	195 "	73
17 "	15	210 " or seven months .	75
18 "	16	225 "	78
19 "	16	240 " or eight months .	80
20 "	17	255 "	83
25 "	19	270 " or nine months .	85
30 "	20	285 "	88
35 "	23	300 " or ten months .	90
40 "	26	315 "	93
45 "	27	330 " or eleven months .	95
		360 " or twelve months .	100

INDEX



INDEX

- Accident frequency, 222, 230
 - reduction in, 27-31
 - diagram of, 28
- Accident prevention, 13-26, 139
 - agencies of, 14-17
 - American Museum of Safety, 16, 17
 - benefits of, 27
 - devices, 20-23
 - Illinois Steel Co., 24-26
 - insurance companies, 16
 - Massachusetts, result of,
 - campaign, 32-33
 - methods of, 17-26
 - National Safety Council, 16, 17
 - New Jersey, 15
 - organization of, 22-26
 - Illinois Steel Co., diagram of, 25
 - railroads, 14
 - reduction in accident frequency, 27-31
 - reduction in loss of time and wages from, 31-33
 - relative efficiency of methods, 25-26
 - results of, 27-38
- Accident prevention, saving
 - net, U. S. Steel corporation, diagram of, 35
 - saving from, 33-36
 - saving from, U. S. Steel Corporation, 34-35
 - U. S. Steel Corporation, 15
- Accidents, industrial, 3-38
 - classification of, 116-118
 - conclusion, 36-37
 - definition of, 3
 - extent of, 3-5
 - loss from, 6
 - loss of time, 6, 8
 - loss to employer, 8
 - loss to society, 9
 - Massachusetts, 5
 - mining, 3
 - prevention of. *See* Accident prevention
 - problem of, 12
 - attempts to solve, 65-66
 - problem of compensating for loss from, 68
 - responsibility for, 9-11
 - results of, 5-9
 - statistics, 11-12
 - steam railways, 4
 - by wage groups, 7

- Administration, commission
 - plan, advantages of, 136, 137
 - disadvantages of, 137
- Administration of workmen's compensation, 132-137
- Assignments, 138-139
- Associated Companies, 285-286
- Assumption of risk, doctrine
 - of, 45-46
 - modification of doctrine of, 49, 50
- Average, law of, 168
- "Average weekly wages,"
 - definition of, 130
- Bailey on Personal Injuries*, 52, 55
- Basic pure premium, 227
- Beneficiaries of compensation, 112-114
- Benefits, limitations of, 119-121
- Beyer, D. S., 37, 260-261, 263
- Bohlen, Francis H., 55
- Brooks, John Graham, 94
- Burdick, F. H., 43-44, 55, 56
- Bureau of Labor Statistics, *Workmen's Compensation and Insurance Series*, 94
- California, Workmen's Compensation Act, 112-113
- California, permanent disability benefits, 122-123
- Catastrophe, definition of, 280-281
- Catastrophe hazard, insurance of, 280-286
- Catastrophe reserves, 190, 282-283
- Catastrophes, 221, 232
- Cities, growth of, 73
- Commission plan, advantages
 - of, 136, 137
 - disadvantages of, 137
- Commissions, administrative, 132-137
 - duties of, 134-136
- Common employment, doctrine of, 46-48
 - abrogation of doctrine of, 51-52
 - modification of doctrine of, 50-52
- Commons and Andrews, 132, 140
- Commutation of payments, 126-127
- Compensation, computation
 - of, 129-131
- Compulsory Insurance in Germany*, 94
- Compulsory workmen's compensation laws, 106
- Computation of compensation, 129-131
- Constitutionality, elective workmen's compensation laws, 155-157

Constitutionality, compulsory
workmen's compensa-
tion laws, 143-155
workmen's compensation
laws, 142-157
U. S. Supreme Court de-
cisions, 151-157
Contracting out, 49, 50
Contractors, 139
Contributory negligence, doc-
trine of, 48
Corporations, compensation
schemes of, 95-96
Cost, burden of, 137-138

Dawson, M. M., 278
Dawson, W. H., 87, 93
Death benefits, 123-126, 128
DeLeon, E. W., 207
Dicey, A. V., 53-54, 56
Disability, duration of, 6
Downey, E. H., 198, 239, 264

Eastman, Crystal, 59, 65, 67
Election of compensation,
104-108
Elective workmen's compen-
sation laws, 104-108
Elliott on Insurance, 199,
207
Employers' liability, assump-
tion of risk, 45-46
burden of proof, 48-49
common employment, 46-
48
contracting out, 49
contributory negligence, 48

Employers' liability, criticism
of, 57-67
death limitation, 49
defects of, 65
duties of employer, 43-45
employee's criticism, 59-63
employer's criticism, 63-64
fellow servant rule, 46-48
Germany, 82-84
Great Britain, 88-90
historical development, 52-
55
law of, 42-55
Michigan, 60
modifications of common
law, 49-52
New York, 59-62
Pennsylvania, 59-60
personal fault concept, 57
proof of, 45
results of, 57-67
society's criticism, 64-65
superior servant rule, 51
vice-principal rule, 50-51
Employers' Liability Act,
Alabama, 53
Federal Statute, 53, 55
Great Britain, 52, 88, 89
Massachusetts, 53, 55
Employers' liability contract,
201-205
cancellation, 203
inspection, 203
miscellaneous, 204-205
notices, 203-204
obligation assumed, 201-
202

- Employers' liability contract,
 - premium computation, 202-203
 - warranties, 204
- Employers' liability insurance, limits in, 282
- premium rates, 208-209
- reserves, 265-279
- Employers' liability rates, 208-209
- Employments covered by workmen's compensation laws, 108-110
- Exemptions, 138-139
- Expense loading, 222, 232-234
- Experience rating, 253-264
 - arguments against, 262
 - arguments for, 262
 - definition of, 252
 - Massachusetts plan, 260
 - Ohio plan, 260
 - National Workmen's Compensation Service Bureau plan, 260
 - New York plan, 255-259
 - application of, 259
 - calculation of loss ratio, 255-257
 - computation of actual debits and credits, 258-259
 - maximum debits and credits, 257-258
 - neutral zone, 257
 - schedule rated risks, 259
 - proposed plans, 260-261
 - Experience rating, New York plan, prospective, 252
 - purpose of, 252-253
 - requirements for scientific plan, 254-255
 - retrospective, 252
- Extraterritorial accidents, 139-140
- Farwell v. Boston & Worcester Railroad Corporation, 45-46, 47-48
- Fellow-servant rule, 46-48
 - abrogation of, 51-52
 - modification of, 50-52
- First Conference on Schedule Rating*, 242
- Fisher, Arne, 239
- Fisher, W. C., 140
- Flynn, B. D., 279
- Fondiller, Richard, 279
- Forbes, Charles S., 263
- Frankel and Dawson, 82-83, 93
- Gaty, T. E., 263
- Germany, employers' liability, 82-84
 - workmen's compensation, 84-87
- Great Britain, employers' liability, 88-90
 - workmen's compensation, 90-93
- Greene, W. W., 263

- Hansen, C. M., 263
 Hoffman, Frederick L., 3, 37
 Howkins v. Bleakly and Garst, 156-157
 Huebner, S. S., 168, 172
- Illinois, rate sheet for, 214
 Imperial Insurance Ordinance, 82
 Increasing cost of the act, 220, 232
 Industrial accident insurance, 65, 66
 Industrial accidents. *See* Accidents, industrial
Industrial Compensation Rating Schedule, 242
 Industrial diseases, 26, 111-112, 232
 Industrial relations, changes in, 69-72
 Injuries covered by workmen's compensation laws, 110-112
 Insurance of the catastrophe hazard, 280-286
 Insurance, employers' liability. *See* Employers' liability insurance
 mutual, 184-187
 policy contract, 199-207
 premium, 169-170
 state funds, 188-193
 arguments against, 192-193
 arguments for, 191-192
 workmen's collective, 96
- Insurance, workmen's compensation. *See* Workmen's compensation insurance
 Insurance requirements, 174-177
 map of, 176
 Insurance, theory of, 161-172
 Inter-insurance exchanges, 175
 Ives v. South Buffalo Railroad Co., 143-147
 Jeffrey Mfg. Co. v. Blagg, 156
 Jensen v. Southern Pacific Co., 151
- Kentucky, Workmen's Compensation Act of 1914, 100
- Laissez faire*, 57
 Law of average, 168
 Law differentials, 231
 Law, Frank E., 273, 274-275, 278
 Limitations of benefits, 119-121, 128
 Limits in employers' liability insurance, 282
 Loss reserves, 267-279
 chart of requirements, 276
 desiderata, 268-269
 difficulties of calculating, 269-270
 law, defects of, 275
 law governing, 272-275

- Loss reserves, methods of
 calculation, 270-272
 proposed law, 275-278
 purpose of, 267, 268
- Machine-employee ratio, 246-
 248
- Machinery, change from
 handicraft to, 72-73
- Maddrill, J. D., 232, 239
- Magoun, W. N., 239
- Manual premium rates, 208-
 239
- Manual, use of, 211-212
- Manual of Workmen's Com-
 pensation Insurance
 Rates, page from,
 213
- Manual rate, definition of,
 211
- Manual rates, 208-239
 accident frequency, 222,
 230
 basic pure premiums, 227
 catastrophe hazard, 221,
 232
 component parts of, 212-
 215
 criticism, 236-37
 expense factor, 222
 factors to be considered in
 computing, 215-221
 future, the, 237-238
 increasing cost of the act,
 220, 232
 law differential, 227-230,
 231
- Manual rates, loss cost, fac-
 tors causing variation
 between states, 221-
 222
 loss cost, factors to be con-
 sidered in computing,
 215-221
 merit rating, effect of, 220-
 221
 method of calculating, 226-
 238
 profit factor, 222
 pure premium, 216-218,
 227
 typical rate calculation,
 235-236
 underestimate of outstand-
 ing losses, 218-220
- Maryland, Workmen's Com-
 pensation Act of 1902,
 96-98
 Workmen's Compensation
 Act of 1910, 99
 Workmen's Compensation
 Act of 1912, 100
 Workmen's Compensation
 Act of 1914, 100
- Massachusetts Industrial Ac-
 cident Board, 32
- Massachusetts, Workmen's
 Compensation Act of
 1908, 98-99
 Workmen's Compensation
 Act, 130
 experience rating plan, 260
- Medical and surgical aid,
 126, 129

- Merit rate, definition of, 240
 Merit rating, 240-264
 bases for, 241
 conclusion, 262-263
 effect of, 220-221
 Montana, Workmen's Compensation Act of 1909, 99
Morale, 253
 Moral hazard, 253
 Mountain Timber Co. v. State of Washington, 153-155
 Mowbray, A. H., 239, 263
 Mudgett, Bruce D., 164-168, 172
Murray v. South Carolina Railroad Co., 46-47
 Mutual Corporations Reinsurance Fund, 285
 Mutual, especially created, 177
 mixed, 175
 pure, 175
 Mutual insurance, 184-187
 arguments against, 187
 arguments for, 186
 characteristics of, 184-185
 history and present position, 185-186
 National Insurance Act, 82
 National Workmen's Compensation Service Bureau, experience rating plan, 260
 Negligence, definition of, 41-42
 law of, 41-42
 law of, as applied to the relation of master and servant, 41-56
 Neutral zone, 257
 New York Central Co. v. White, 151-153
 New York, Workmen's Compensation Act of 1910, 100
 experience rating plan, 255-259
 application of, 259
 Occupational diseases, 26, 111-112, 232
 Ohio, experience rating plan, 260
 Olifiers, Edward, 239
 Oregon, schedule of compensation, 119
 Outstanding losses, underestimate of, 218-220
 Partial disability benefits, 120-121
 Partial disability, permanent, 120-121
 temporary, 120
 Pennsylvania, Workmen's Compensation Act, 121, 122, 124-125
 proposed experience rating plan, 261
 Permanent partial disability, 120, 121

- Permanent total disability,
119-120
- Policy contract, 199-207
a contract of indemnity,
199-200
employers' liability. *See*
Employers' liability
contract
general principles, 199-201
a personal contract, 200-
201
rules of construction, 201
workmen's compensation.
See Workmen's com-
pensation contract
- Preferred claim to compen-
sation, 138
- Premium rates, employer's
liability, 208-209
history of, 209, 210
importance of, 210
kinds of, 211
problem of, 223-224
task of rate-making, 210-
211
workmen's compensation,
208-239
See also Manual rates
- Price, C. W., 32, 38
- Priestly v. Fowler, 42, 46
- Probability, theory of, 162-
168
accuracy of theory, 163-
168
application of theory to
the insurance of em-
ployers' liability and
workmen's compensa-
tion, 168-171
- Probability, theory of, prac-
tical qualifications, 171
- Proceedings of the Joint
Conference on Work-
men's Compensation
Rates*, 233-235
- Pure premium, 216-218, 227
- Rate-making, machinery of,
224-226
task of, 210, 211
- Rate sheet, specimen, 214
- Rates, workmen's compensa-
tion insurance. *See*
Manual rates and Pre-
mium rates
- Rating, formula, 249
- Reinsurance, 283-286
Lloyds, 284
Mutual Corporations Rein-
surance Fund, 285
workmen's compensation,
284-286
Workmen's Compensation
Reinsurance Bureau,
285
- Relief Associations, 65, 66
- Reserve, definition of, 267
- Reserves, 265-279
catastrophe, 190, 282-283
loss. *See* Loss reserves
unearned premium, 265-
267
- Respondeat superior*, doc-
trine of, 42, 48, 53

- Rhodes, J. E. 2d, 141, 207
 Richards on Insurance, 199-200, 207
 Rubinow, I. M., 67, 102, 198, 217-218, 228, 238, 279
 Ryan, H. E., 198, 263
- Standard Distribution of Accidents Table, 229
Standards for Workmen's Compensation Laws, 109
 State ex rel. Davis-Smith Co. v. Clausen, State Auditor, 147-150
 State funds, 175, 177, 188-193
 arguments against, 192-193
 arguments for, 191-192
 catastrophe reserve, 190
 characteristics of, 188-190
 dates of establishment, 191
 expenses, 189, 190
 history and extent of business, 190-191
 Stock companies, 179-184
 arguments against insurance in, 183-184
 arguments for insurance in, 181-183
 characteristics of, 179-180
 dates of organization, 182-183
 history and present position of, 180, 181
 Sub-contractors, 139
- Superior servant rule, 51
 Surgical aid, 126
 Scattergood, C. E., 216-217, 239
 Schedule of Compensation, 116-131
 criticism of, 127-129
 Schedule rating, 241-252
 application of the schedule, 249-252
 conclusion, 252
 definition of, 241
 education, 248-249
 eye protectors, etc., 249
 formula rating, 249
 hazard, types of, 243-246
 inspection, 248-249
 machine-employee ratio, 246-248
 maintenance and inspection, 249
 rating sheet, 251
 safety organization, 248-249
 sample page, 244
 schedule, the, 242
 scope of, 242-243
Schedule for Rating Permanent Disabilities, 123
 Seager, H. R., 78
 Self-insurance, 173-174
 Senior, L. S., 264
 Shaw, Chief Justice, 54
 Shearman and Redfield, 42, 55
 Smith v. Erie Railway Co., 44

- ★ Social ideas, new, 73-75
- Specific injury schedules, 129
- Specific permanent injury schedules, 121-122
- Temporary partial disability, 120
- Temporary total disability, 118-119
- Titus v. Bradford, etc., Railway, 44
- Total disability, 118-120
 - permanent, 119-120
 - temporary, 118-119
- Underestimate of outstanding losses, 218-220
- Unearned premium reserve, 265-267
 - method of calculating, 266-267
- United States Supreme Court, decisions on constitutionality of workmen's compensation laws, 151-157
- United States, historical development of workmen's compensation, 94-102
 - Workmen's Compensation Act of 1908, 99
 - workmen's compensation legislation in, 103-141
- Vice-principal rule, 50-51
- Waiting period, 114-115
- Washington, schedule of compensation, 119
- Whitney, A. W., 263
- Willett, A. H., 172
- William I of Germany, 85-86
- Wilson, H. M., 264
- Woodward, Joseph H., 254, 260, 263, 267-268, 279
- Workmen's collective insurance, 96
- Workmen's compensation, administrative commissions, 132-134
 - assignments, 138-139
 - basis of, 76-78
 - beneficiaries of, 112-114
 - benefits, 116-131
 - burden of cost, 137-138
 - California act, 112-113
- Workmen's compensation commission, duties of, 134-136
- Workmen's compensation, commutation of payments, 126-127
- Workmen's compensation
 - contract, 205-207
 - approval of, 206-207
 - cancellation, 206
 - notices, 206
 - obligation assumed, the, 205-206
 - premium adjustments, 206
- Workmen's compensation, definition of, 76

Workmen's compensation,
election of, 104-108
exemptions, 138-139
federal act of 1908, 99
foreign countries, historical development in,
79-93
Germany, 84-87
early laws, 82, 83
law of 1884, 86-87
present law, 87
Great Britain, 90-93
law of 1897, 90, 92
law of 1906, 92-93
Workmen's compensation insurance, 173-198
conclusions from experience, 195-197
contract. *See* Workman's compensation contract
expense factor, 222
future, the, 197
Workmen's compensation insurance manual, 211-212
Workmen's compensation insurance, manual premium rates, 208-239
methods of, 173-198
conclusion, 193-197
methods permitted, 177-179
rates. *See* Manual rates
reinsurance, 284-286
reserves, 265-279
types of organization, 174-175

Workmen's compensation laws, administration,
132-137
compulsory, 106
compulsory, constitutionality of, 143-155
constitutionality of, 142-157
death benefits, 123-126, 128
defects of, 104
elective, 104-108
elective, constitutionality of, 155-157
employments covered, 108-110
extraterritorial accidents, 139-140
foreign, dates of enactment of, 80-81
injuries covered, 110-112
insurance, methods permitted, 177, 179
insurance requirements, 175-177
limitations of benefits, 128
map showing elective and compulsory laws, 107
medical and surgical aid, 126, 129
miscellaneous provisions, 137-140
schedule of compensation, 116-131
schedule of compensation, criticism of, 127-129
specific injury, 129
surgical aid, 126

- Workmen's compensation
 laws, disability benefits, 118-120
 waiting period, 114-115
 years of enactment, 101
- Workmen's compensation
 legislation in the
 United States and territories, 103-141
- Workmen's compensation,
 literature of, 94-95
- occupational diseases, 111-112
- Workmen's compensation
 permanent disability,
 122, 123
- Workmen's compensation
 preferred claim, 138
- Workmen's Compensation Re
 insurance Bureau, 28
- Workmen's compensation
 theory of, 68-78
- United States, historical
 development, 94-102
- Young, Robert J., 24-26

APR 30 1918

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